Province of New Brunswick

An Environmental Scan of Various Prescription Drug Insurance Programs

(A Research Document by Ernst & Young
Commissioned by the NB Department of Health)

January 2003

106-01399/

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Executive Summary

Over the last three years, the cost of the New Brunswick Prescription Drug Program (NBPDP) has increased at rates between 10.8% and 14.9% per year (depending on the year). Such increases, while in line with the increases found in other public and private insurance plans, are considerably higher than inflation and deserve attention.

The rising cost of prescription drugs, both in absolute numbers and as a percentage of total health expenses has been a major concern for private group insurance plan sponsors and for governments over the last 15 years. During this period, all over the world, the cost of prescription drugs has increased significantly faster than inflation. Although many approaches have been tried so far, no country, no province nor any employer or plan sponsor has been able to keep the cost of prescription drugs from increasing faster than inflation. This is due mostly to a significant increase in the utilization of prescription drugs, resulting from:

- The development of new drugs that extend the life expectancy of persons suffering from serious illness
- The aging of the population in western countries
- A shift toward prescription drugs as the preferred tool for treating medical conditions
- Aggressive marketing by pharmaceutical companies

The fact that newer drugs are much more expensive than older ones also played a major role in the increase in the cost of prescription drugs.

Even though no single approach or combination of approaches has succeeded in fully controlling the cost of prescription drugs, many approaches (some of which are already used in New Brunswick) have contributed to alleviate the increase in the cost of prescription drugs. New Brunswick seems to be one of the most pro-active jurisdictions regarding cost control, with measures such as generic substitution, drug utilization review, stringent control on the list of prescription drugs covered by NBPDP, etc

However, there are still two major problem areas that need to be prioritized:

- Overutilization of prescription drugs
- Improper use of prescription drugs, especially regarding adverse interactions between various medication prescribed by different physicians

Among all the approaches used in various countries and provinces and not already in place in New Brunswick, some appear to have an interesting potential for cost control. These approaches are:

- Management of a prescription drug budget by physicians
- Prescription assistance with on-line adjudication
- Centralized purchasing of prescription drugs
- Price controls
- Coinsurance (or proportional co-payments)

Management of a prescription drug budget by physicians and prescription assistance with on-line adjudication seem to be the most promising approaches, as they target over-utilization and try to solve problems related to the use of conflicting medication.

Replacing flat co-payments with proportional coinsurance would be equivalent to auto-indexing the co-payment, would be rather easy to implement and may foster the use of less expensive drugs. It is definitely an approach worth exploring.

Centralized purchasing of prescription drugs seems to have had some success in other countries and would probably be worth a closer look. Price controls seem to work well elsewhere but require an active intervention of the government.

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Section 1
Introduction

The Cost of NBPDP

Over the last three years, the cost of the New Brunswick Prescription Drug Program (NBPDP) has increased at rates between 10.8% and 14.9% per year (depending on the year). Such increases, while in line with the increases found in other public and private insurance plans, are considerably higher than inflation and deserve attention.

The New Brunswick Prescription Drug Program provides prescription drug benefits to certain residents of New Brunswick. It is a last resort program, for persons who are not covered by any other contract or plan of insurance. The program consists of several individual drug plans, each designed to meet the needs of beneficiary groups:

- Seniors – covered under Plan A (approximately 62,000 persons)
- Social Assistance recipients – covered under Plan F (approximately 55,000 persons)
- Social Assistance recipients living in licensed residential facilities – covered under Plan E (approximately 3,500 persons)
- Persons suffering from specific conditions:
    - Cystic fibrosis – covered under Plan B (approximately 100 persons)
    - Multiple sclerosis – covered under Plan H (approximately 150 persons)
    - Organ transplant recipients – covered under Plan R (approximately 250 persons)
    - Human growth hormone deficiency – covered under Plan T (approximately 20 persons)
    - HIV – covered under Plan U (approximately 150persons)
- Nursing home residents – covered under Plan V (approximately 5,000 persons)
- Children in Care of the Minister of Family and Community Services – covered under Plan G (approximately 1,750 persons)

Our Mandate

We have been mandated by NBPDP to analyze the various approaches used in other countries and provinces to address the issue of the rising cost of prescription drugs. Our mandate also included a review of the various issues relative to prescription drug policy, along with the identification of the major deterrents to cost control in this area. Finally, we identified possible approaches that could help New Brunswick to better control its expenditure on prescription drugs, to the extent that such control is feasible.

Section 2
International Approaches

The Australian prescription Drug Scheme

The Australian Pharmaceutical Benefits Scheme (PBS) provides prescription drug insurance to all Australian residents. It is an integrated program with cost control features and control over the licensing and the price of prescription drugs available in Australia.

The Insurance program

Types of Participants:

There are two major types of participants:

- General patients
- "Concessional" patients (Seniors and social assistance beneficiaries)

Veterans and war widows / widowers are covered under the Repatriation Pharmaceutical Benefits Scheme (RPBS), which provides coverage similar to that provided by the PBS to "concessional" patients.

Identification of the Type of Patient

To be recognized as persons covered under the PBS, general patients need only to present their Medicare card when buying prescription drugs at the pharmacy. "Concessional" patients receive a "Safety Net" Concession card issued by the pharmacist. Once they have reached their out-of-pocket ("Safety Net") maximum, they receive a "Safety Net" Entitlement card that allows them to receive prescription drugs free of charge for the remainder of the year.

Major Features

Deductible and Maximums

The system has the following deductibles and maximums, depending upon the type of patient:

Table A-1
PBS Deductibles & Maximums – 2002 ($ A)

Category of patients	Deductible	Out-of-Pocket Maximum	Overall Maximum
General patients			
- At the pharmacy	$ 22.40 / medicine	$ 686.40 / family	$ 762.00 / family
- In hospital	$ 15.00 / medicine	$ 686.40 / family	$ 762.00 / family
"Concessional" patients	$ 3.60 / medicine	$ 187.20 / family	$ 187.20 / family

(Figures are in Australian dollars - $1.00 A = $0.83 CDN as of mid-March, 2002)

Each time a patient buys a prescription drug, he/she has to pay the deductible to the pharmacist. If the cost of the medicine is lower than the deductible, the patient pays the actual cost. There is no coinsurance or co-payment other than the deductible. The pharmacist advances the excess of the cost of any medicine over the deductible and is reimbursed by the PBS on a monthly basis. The pharmacist also discloses to the PBS the amount paid by the patient when the cost of a prescription drug is lower than the deductible.

The out-of-pocket maximum is called the "Safety Net". It can be reached by accumulating prescriptions through community pharmacies or public hospitals or a combination of both. When a general patient (or a family) has paid $686.40, this patient (or family) becomes a "concessional" patient. The patient (or family) then has to pay only $3.60 for each new medicine, like seniors and social assistance recipients. The maximum is then transformed into a "concessional" equivalent on the basis of $3.60 / medicine. Hence, upon becoming a "concessional" patient, the general patient (or family) has already accumulated 31 medicines (@ $3.60) or $111.60 toward the "concessional" maximum. As a result, the "concessional" out-of-pocket maximum only increases the previously met out-of-pocket maximum by $75.60, for an overall maximum of $762.00. When a "concessional" patient reaches the "concessional" out-of-pocket maximum, this patient can receive prescription drugs free of charge for the rest of the calendar year.

For the application of the out-of-pocket maximum, a family includes the common-law spouse, children 16 years of age and under and dependent students under the age of 25 but does not include a same-sex spouse.

Types of Drugs Covered by the PBS

To be covered under the PBS, a prescription drug must be listed on the PBS Schedule. Prescription drugs fall into three broad categories :

- Unrestricted (these dugs have no restriction on their therapeutic uses)
- Restricted (these drugs can only be prescribed for specific therapeutic uses);
- Authority required (these drugs are restricted and require prior approval from the health Insurance Commission)

The major aim of this system is to use drugs where they will be the most cost effective.

Drug Substitution – Brand

The PBS benefit is based on the price of the lowest brand product. As a result, patients may have to pay the difference between the cost of the actual drug prescribed and the cost of the lowest brand product. This difference is not counted toward the calculation of the out-of-pocket maximum.

To avoid charging an extra cost, brand substitution by pharmacists without reference to the prescriber is permitted where:

- the patient agrees to the substitution;
- the brands are identified in the Schedule of Pharmaceutical Benefits as being interchangeable;
- the prescriber has not specified on the prescription form that substitution is not to occur; and
- substitution is permitted under the relevant State or Territory legislation.

Therapeutic Premium

In three therapeutic groups, the PBS benefit is based on the price of the lowest priced drugs in the group. As a result, the patient has to pay an extra cost to obtain the following products: Amfamox, Pepcidine, Tagamet, Tazac, Zantac, Adalat, Norvasc and Tritace, unless:

- adverse effects and / or drug interactions are occurring or expected to occur, with all of the base-priced products; or
- the transfer to a base-priced product would cause patient confusion resulting in problems with compliance.

The extra cost paid by the patient for these drugs is not counted toward the out-of-pocket maximum.

Therapeutic substitution (substitution of a product containing a particular active molecule with a product having a different active molecule) is not permitted.

Cost Control Features

One of the most original aspects of the Australian Prescription Benefits Scheme is the array of cost containment features that go beyond the traditional cost controls features of insurance programs.

Basically, these controls are two-fold: supply-side controls, that aim at reducing the cost of prescription drugs and demand-side controls, that aim at reducing the demand for prescription drugs, either by controlling abusive use of the system or by fostering the use of the most appropriate medicine.

Supply-side Controls

Listing Process

To be listed as a covered drug, a product must either:

- be needed for the prevention or treatment of significant medical conditions not already covered or inadequately covered by drugs in the existing list while being of acceptable cost-effectiveness; or
- be more effective, less toxic (or both) than a drug already listed for the same indications while being of acceptable cost-effectiveness; or
- be at least as effective and safe as a drug already listed for the same indications while being of similar or better cost-effectiveness.

The listing process includes a pharmaco-economic evaluation of drugs submitted for approval. The final price of any product on the list is negotiated between the manufacturer and the Pharmaceutical Benefits pricing Authority. As a result of this process, the number of different drugs available under the PBS may be expected to be smaller than what would be the case in a free market. The current list contains approximately 1900 products, of which many are mere variations of the same product. By comparison, the list of prescription drugs covered under the Quebec Prescription Drug Insurance Act contains approximately 3200 unrestricted products, plus approximately 125 restricted products.

Once a prescription drug is approved for marketing in Australia, the company concerned usually applies to have the drug listed on the PBS. Because of the attraction of the scheme to consumers, it is usually necessary for the company to have the drug listed on the scheme for viable marketing to occur.

The whole process for listing a new drug under the PBS is quite complex and involves four different committees. The pharmaceutical company must submit the drug to the Pharmaceutical Evaluation Section (PES) of the Pharmaceutical Benefits Branch of the Federal Health Department. The technical aspects of the drug and its cost-effectiveness ratio are reviewed and validated by the Economics Subcommittee (ESC), an experts' committee, which provides advice to the Pharmaceutical Benefits Advisory Committee (PBAC), another experts' committee which makes a recommendation to the minister of health as to approve the proposed drug at the requested price or at a different price or to reject the application. PBAC also makes recommendations on prescribing restrictions, quantities and number of repeat prescriptions. The Minister cannot list a drug if the PBAC does not recommend listing. If the decision is likely to result in an expenditure of more than $10 million in the first year, the decision to list the drug must be endorsed by Cabinet. The final step is the negotiation of a final price with the manufacturer, which is done by the Pharmaceutical Benefits Pricing Authority (PBPA).

Price Controls

The Australian PBS operates as a sole purchaser system, with the government controlling the cost of covered prescription drugs.

The cost of a PBS medicine is made up of three controlled elements:

- an agreed price negotiated between the Australian government and the manufacturer;
- a controlled mark-up applied by wholesalers and pharmacists;
- a pharmacist dispensing fee determined by an independent tribunal

The wholesaler's margin on the manufacturer's price is set at 10%. The average dispensing fee for the period ending June 30, 2002 is $6.76 A (or $5.68 CDN) per script. It is made up of a flat $4.40 A dispensing fee plus a mark-up that depends on the wholesale price, (10% up to $ 180 A, $18.00 A between $180 A and $450.00 A and 4% if the wholesale price is above $450 A).

Demand-Side Controls

Drug Utilization Review

There is a Drug Utilization Subcommittee that monitors the use of prescription drugs. So far, this committee has focused on publishing statistics on the Australian use of medicines. Publication of the Australian data is intended to facilitate international comparisons of drug utilization profiles, and encourages international collaboration on drug utilization research particularly in relation to enhancing the quality use of medicines and health outcomes. The mandate of the subcommittee also includes:

- advising the PBAC on changes in drug utilisation patterns as a consequence of changes in drug availability or restrictions on drug use and to review the utilisation of drugs or therapeutic groups of drugs, including those showing large changes in utilization rates;
- identifying potential health problems and benefits related to patterns of drug utilisation;
- facilitating the dissemination of information on drug utilisation.
- Conducting international comparisons of drug utilisation by interaction with appropriate international bodies; and
- contributing to educational initiatives which promote the quality use of medicines.

The Drug Utilization Subcommittee is in relation with the Adverse Drug Reactions Advisory Committee, the Pharmaceutical Health and Rational Use of Medicines committee and the Board of the Australian Prescriber which publishes objective, expert advice about drugs for health professionals.

Doctor Shopping Project

The Doctor Shopping project aims to significantly improve the health outcomes of patients at risk from "doctor shopping" activity by reducing the number of people who visit more general practitioners than would appear necessary in order to obtain more PBS prescription medicines than clinically necessary.

A "doctor shopper" is a person who, in one year:

- sees 15 or more different general practitioners;
- has 30 or more Medicare consultations; and
- obtains more PBS prescription than appears to be clinically necessary.

The number of "doctor shoppers" decreased from 13,240 (0.072% of total population) in 1995-96 to 8,780 in 1999-2000 (0.045% of total population). On the average (based on the 50th percentile, not the true average as it would be distorted by extremely high users), during a year, they see 17 different doctors, have 68 consultations and have 99 prescriptions. They visit 12 different pharmacies. They use mostly benzodiazepines, codeine compounds and narcotic analgesics. In one year (from 1998-99 to 1999-2000), the Doctor Shopping project produced a 1.47% reduction in Medicare services and a 0.45% reduction in PBS prescriptions.

Financial Results

The following tables compare the cost of prescription drugs in Australia and in Canada.

Before analyzing these tables, it is important to remind the reader of the recent health context in Canada. As can be seen in Table A-3 (next page), the total health expenditures, adjusted for population growth and general inflation have increased at the rate of 1.41% in Canada between 1990 and 1999, compared with 3.23% in Australia, after making allowance for the variation in the exchange rate between the Canadian and the Australian currencies.

This major difference can be interpreted as a gain of efficiency for Canada compared with Australia, or as a cash crunch due to a reduction in Federal health transfers in Canada.

Table A-2
Ratio of Prescription Drugs to Total Health Expenditure

	Australia					Canada
	Government (Million $ A)	Non-gov (Million $ A)	Total (Million $ A)	Total Exp. (Million $ A)	Ratio	Ratio
1989-1990	1,266	1,224	2,490	26,834	9.28%	7.89%
1990-1991	1,247	1,535	2,782	29,300	9.49%	8.16%
1991-1992	1,319	1,782	3,101	31,175	9.95%	8.65%
1992-1993	1,601	1,831	3,432	32,842	10.45%	9.09%
1993-1994	1,888	1,909	3,797	34,412	11.03%	9.09%
1994-1995	2,087	2,159	4,246	36,627	11.59%	9.79%
1995-1996	2,515	2,142	4,657	39,390	11.82%	9.96%
1996-1997	2,729	2,245	4,974	42,168	11.80%	10.68%
1997-1998	2,801	2,534	5,335	44,605	11.96%	11.10%
1998-1999	3,092	2,727	5,819	47,481	12.26%	11.54%

Table A-2 shows that the ratio of the cost of prescription drugs to total expenditure has increased faster in Canada than in Australia over the 1990-1999 period. This is due chiefly to the fact that total health expenses have increased more slowly in Canada than in Australia. Table A-4 sheds some light on this phenomenon, showing that the cost of prescription drugs per capita, in Canadian currency, has increased faster in Australia (7.98%) than in Canada.

Table A-3
Increase in the Cost of Prescription Drugs and Total Health Expenditure Australia vs. Canada – 1989-90 to 1998-99

	Prescription Drugs			Total
	Government	Non-gov	Total	Health Expenditure
Australia				
Ann. increase	10.43%	9.31%	9.89%	6.55%
Pop. growth	1.16%	1.16%	1.16%	1.16%
Gen. inflation	1.40%	1.40%	1.40%	1.40%
Net increase	7.87%	6.75%	7.33%	3.98%
Net increase in CDN currency	7.12%	6.00%	6.58%	3.23%
Canada				
Ann. increase	7.67%	9.64%	8.77%	4.27%
Pop. growth	1.08%	1.08%	1.08%	1.08%
Gen. inflation	1.78%	1.78%	1.78%	1.78%
Net increase	4.81%	6.78%	5.91%	1.41%

Sources:
Australian Institute of Health & Welfare - Health Expenditure Bulletin, Tables A-1 to A-10 & Table 29
Australian Bureau of Statistics : Australian Historical Population Statistics (3105.0.65.001)
Canadian Institute for Health Information : Drug Expenditures in Canada 1985-2000

Table A-4
Comparison of Per Capita Prescription Drug Cost – Australia vs. Canada

	Australia				Canada		
	Total cost for presc. drugs $ Million A	Exchange rate	Pop. (million)	Cost / capita $ CDN	Total cost for presc. drugs $ Million CDN	Pop. (million)	Cost / capita $ CDN
1989-1990	$2,490	0.911	17.1	$132.93	$4,824	27.7	$174.13
1990-1991	$2,782	0.893	17.3	$143.86	$5,415	28.0	$193.18
1991-1992	$3,101	0.888	17.5	$157.69	$6,044	28.4	$213.00
1992-1993	$3,432	0.877	17.7	$170.33	$6,516	28.7	$227.02
1993-1994	$3,797	0.999	17.9	$212.39	$6,670	29.0	$229.71
1994-1995	$4,246	1.018	18.1	$239.07	$7,294	29.4	$248.49
1995-1996	$4,657	1.068	18.3	$271.56	$7,496	29.7	$252.64
1996-1997	$4,974	1.029	18.5	$276.43	$8,429	30.0	$281.07
1997-1998	$5,335	0.933	18.7	$265.76	$9,318	30.2	$308.06
1998-1999	$5,819	0.864	18.9	$265.37	$10,276	30.5	$336.91
Annual inc.	9.89%		1.16%	7.98%	8.77%	1.08%	7.61%

The Swedish Approach

The Swedish prescription Drug Scheme

Recent international studies have placed Sweden among the world's elite in the health care field. The health and medical services are organized into a uniform, nationwide program that gives each person access and the right to the best available care.

Health care, in Sweden, is thus regarded as a task for the public sector.

Eligibility

Every Swedish resident is covered for prescription drugs by the national health insurance program.

Major Features

Deductible, Coinsurance and Maximums

The Swedish reimbursement program protects individuals who need large amount of medicines from incurring large costs. Thus, healthy individuals with a temporary need for treatment are to pay a larger proportion of their prescription costs than individuals with chronic diseases who need to use medicines continuously.

The cost for each person may be reduced, depending on this person's utilization of covered drugs. The reduction is based on the total cost of reimbursable products purchased by the beneficiary in the course of a year. The amount reimbursed is as follows:

- 0% of the amount when the total cost falls below SEK 900 ($144.00 CDN)
- 50% of the amount above SEK 900 but below SEK 1700 ($272.00 CDN)
- 75% of the amount above SEK 1700 but below SEK 3300 ($528.00 CDN)
- 90% of the amount above SEK 3300 but below SEK 4300 ($688.00 CDN)
- 100% of the amount in excess of SEK 4300

This is equivalent to a progressive coinsurance combined with a SEK 900 ($144.00 CDN) deductible. It results in a maximum annual patient spending of 1800 SEK ($288.00 CDN). Any additional prescribed medicinal products are free-of-charge to the patient.

Costs for all children under 18 years of age within a family unit may be added together.

Drugs Covered and the Listing Process

The Medical Products Agency is a central government agency whose principal task is to control and evaluate the quality, use and cost-effectiveness of pharmaceutical preparations. All drugs sold in Sweden must be approved and registered by the agency. Within the context of mutual recognition in the EU, an approval is also granted if the medicinal product has been approved in some other European country.

When a drug is approved for reimbursement, it is granted a reimbursement price. It is included in the positive list and thus becomes eligible for reimbursement. In Sweden, reimbursement is not related to the patient category nor to the type of illness. The positive list covers most prescription drugs and also non-prescription or over-the-counter (OTC) medicines necessary for the treatment of lingering illnesses (i.e. when continuous or repeated treatments are needed).

Most pharmaceuticals for treatment of illness can be reimbursed but there are some exceptions (e.g. products for treatment of hair-loss, products for smoking cessation, some cough-suppressants and expectorants, etc).

State Monopoly on Distribution of Prescription Drugs

There is a monopoly on retail sales of pharmaceuticals in Sweden. Pharmaceuticals can only be sold from a pharmacy and all pharmacies are part of a single company, Apoteket AB, owned by the government. The corporation is responsible for ensuring a good drug supply at uniform prices throughout the country, which means that all approved pharmaceutical products must be available at all pharmacies. In addition, the National Corporation of Swedish Pharmacies is responsible for providing fact sheets and other information about drugs to the public and to physicians

Cost Control Features

Pricing Process of Medications

In Sweden, the pricing of pharmaceuticals is free. However, if a product is to be covered by the Drug Benefit Scheme, the company marketing the product must apply to RFV (a.k.a. the National Social Insurance Board) for establishing a reimbursement price.

The RFV authorizes over 3,000 prices annually, three out of four relate to price changes and about 200 to new products. Prices are granted for each formulation, dosage and pack size. Hence, if the company introduces a line extension it must make an application for a reimbursement price.

The following factors are taken into account when RFV decides on a price of a new medicine:

- The medical and health economic value of the product
- The impact on the reimbursement bill
- The price in the country of origin
- The price and cost related products

In general, this system aims to award an "international price". Other key objectives are to achieve a narrow Scandinavian price corridor and an average therapeutic class price, unless there is clear evidence of marked clinical gain by an innovative product.

There is no tax on prescribed drugs. For drugs sold without prescription (OTC-sales) the VAT (Value Added Tax) rate is 25%.

Price and Cost Controls

The body that is responsible for economic evaluation assessments is the SBU (The Swedish Council on Technology Assessment in Health Care). The main objective of SBU is to identify and caution about methods that do not contribute to the patient's health. Eliminating these ineffective methods saves money and helps assure quality in the healthcare system.

SBU's recommendations have indicated ways to save billions of Swedish kronor by discontinuing ineffective healthcare procedures and routines.

The current prescription drug insurance program was introduced in 1997. (Before 1997, the Swedish Drug Benefit Scheme consisted of two groups of drugs: a free list that included drugs that were completely free for patients and a different list for drugs that involved out-of-pocket) The purpose of this reform was:

- To make doctors and patients more aware of the cost of prescription drugs
- To ensure that all drugs and diagnosis groups be treated the same way, leading to the removal of the free list
- The ensure, within the framework of available resources, that those who need large quantities of drugs and medicines are adequately protected against excess costs
- To transfer the cost responsibility for drugs used in the non-institutional care sector gradually to the county councils so that drugs are seen as part of the overall health and medical care system

There is also an increasing interest in providing feedback on physician prescribing.

Financial Results

The following tables compare the cost of prescription drugs in Sweden and in Canada.

Table S-1
Ratio of Pharmaceuticals to Total Health Expenditure

	Sweden					Canada
	Government (Million $US[1])	Non-gov (Million $US)	Total (Million $US)	Total Exp. (Million $US)	Ratio	Ratio
1989	680	272	952	12,089	7.88%	11.03%
1990	736	291	1,027	12,770	8.04%	11.26%
1991	778	307	1,086	12,581	8.63%	11.53%
1992	894	372	1,267	13,023	9.73%	12.11%
1993	968	437	1,404	13,153	10.68%	12.68%
1994	1,111	458	1,570	13,215	11.88%	12.73%
1995	1,273	510	1,783	14,314	12.45%	13.41%
1996	1,400	566	1,967	15,202	12.94%	13.62%
1997	1,389	562	1,950	15,177	12.85%	14.33%

Table S-2
Increase in the Cost of Pharmaceuticals and Total Health Expenditure
Sweden vs. Canada – 1989 to 1997

	Pharmaceuticals			Total Health
	Government	Non-gov	Total	Expenditure
Sweden				
Ann. increase	8.26%	8.38%	8.29%	2.56%
Pop. growth	0.47%	0.47%	0.47%	0.47%
Gen. inflation	4.32%	4.32%	4.32%	4.32%
Net increase	3.47%	3.59%	3.50%	-2.23%
Canada				
Ann. increase	7.99%	8.02%	8.00%	4.27%
Pop. growth	1.13%	1.13%	1.13%	1.13%
Gen. inflation	2.67%	2.67%	2.67%	2.67%
Net increase	4.18%	4.21%	4.19%	0.46%

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[1] All of these figures are in US dollars adjusted for the Purchasing Power Parity between Sweden and the US (i.e. adjusted to eliminate the differences in price levels between both countries)

Table S-1 shows that, as a proportion of total health expenditures, the cost of pharmaceuticals has increased faster in Sweden than in Canada. Table S-2 gives some light on this phenomenon by showing that the total health expenditure has increased much more slowly in Sweden than in Canada. When we remove the impact of inflation and population growth, the total net health expenditure has even decreased in Sweden. Since the total health expenditure has increased more slowly in Sweden, it is normal that the proportion corresponding to pharmaceuticals has increased faster. As a matter of fact, Table S-2 shows that the cost of pharmaceuticals has increased slightly faster in Canada than in Sweden.

Since these tables compare the cost of all pharmaceuticals, including not only prescription drugs but also over the counter drugs, extra care is required when interpreting the results. Table S-2 also shows that pharmaceuticals make up a greater portion of total health care expenses in Canada than in Sweden but the gap between both countries is narrowing.

On the other hand, Table S-3 shows that the cost of pharmaceuticals, when expressed in Canadian currency, has increased faster, on a per capita basis, in Sweden than in Canada. This may be due, to some extent, to the exchange rate, as the Canadian Dollar lost ground to the Swedish currency.

Table S-3

Comparison of Per Capita Pharmaceuticals Cost – Sweden vs. Canada

	Sweden				Canada		
	Total cost for pharmaceuticals Million $US	Exchange factor*	Pop. (million)	Cost / capita $ CDN	Total cost for pharmaceuticals $ Million CDN	Pop. (million)	Cost / capita $ CDN
1989	$952	1.74096	8.5	$194.99	$6,197	27.3	$227.12
1990	$1,027	1.74602	8.6	$209.52	$6,882	27.7	$248.46
1991	$1,086	2.05672	8.6	$259.15	$7,652	28.0	$273.27
1992	$1,267	2.03938	8.7	$297.75	$8,462	28.4	$297.97
1993	$1,404	1.76674	8.7	$284.45	$9,092	28.7	$316.80
1994	$1,570	1.57762	8.8	$282.39	$9,347	29.0	$322.29
1995	$1,783	1.81759	8.8	$367.15	$9,998	29.4	$340.06
1996	$1,967	1.99560	8.9	$443.02	$10,251	29.7	$345.16
1997	$1,950	1.88910	8.9	$415.60	$11,306	30.0	$376.87
Annual increase	8.29%		0.47%	8.77%	6.91%	1.06%	5.79%

* This factor converts the US figures adjusted for purchasing power parity (Sweden / US) to the Canadian cost only adjusted for the currency exchange rate. It is equivalent to taking the real cost in Swedish Kronor and applying the currency exchange rate to obtain a figure in Canadian dollars.

The German Approach

Germany has a decentralized national health care system, with coverage provided by a large number of insurance funds.

A fundamental facet of the German political system that directly impacts the health care system is the sharing of decision-making powers between the *Länder* and the federal government, with further powers governing statutory insurance schemes being delegated to nongovernmental corporatist bodies.

Corporatism has several important aspects. Firstly, it hands over certain rights of the state as defined by law to corporatist self-governed institutions. Secondly, the corporatist institutions have mandatory membership and the right to raise their own financial resources under the auspices of, and regulation by the state. Thirdly, the corporatist institutions have the right and obligation to negotiate and sign contracts with other corporatist institutions and to finance or deliver services to their members.

For prescription drugs, the Federal level looks after the licensing and the safety of pharmaceutical products, the Länder supervise pharmacists and their professional institutions and the corporatist institutions are responsible of negotiating, financing and delivering services to their members. There are two types of corporatist institutions: physicians' associations on the provider side and sickness funds and their association on the purchasers' side. As of 1999, there were approximately 450 sickness finds, ranging from large, regional funds to company-based funds and "occupational" (guilds, farmers, miners, sailors) funds.

The pharmaceutical industry in Germany is amongst the most powerful in developed countries and contributes significantly to the export market. As a major player in the German economy, the pharmaceutical industry has tried to influence, with some success, the German prescription drug insurance system.

The German prescription Drug Insurance System

Eligibility

Currently, 88% of the population is covered under the Statutory Health Insurance (SHI) that covers prescription drugs; 74% as mandatory members (with their dependants) and 14% as voluntary members (with their dependants). Nine percent (9%) of the population is covered under private health insurance, 2% under free governmental health care (i.e. police officers, soldiers, etc.) while only 0.1% is not insured.

Major Features

Cost-sharing has a long tradition within the German health care system, the most traditional sector being the pharmaceutical sector.

Contributions

Contributions to sickness funds are shared equally between the insured and their employers. Taking the current average contribution rate of 13.5% as an example, the insured persons pay 6.75% out of their pre-tax income below a ceiling and the employer pays the same amount in addition to wages. Since the sickness funds cover not only prescription drugs but also medical and dental services, it is not possible to identify an actual contribution channelled specifically to prescription drug insurance.

Co-payments

For prescription drugs, co-payments have increased over the years, but cost-sharing as a percentage of total costs had remained stable at less than 5% of pharmaceutical expenditure until 1992 (when it was 3.5%). Then came a new regulation of the Health Care Structure Act, which introduced new co-payments according to the price of the medication pack (in 1993) and later according to pack size (in 1994). These measures doubled patient cost sharing to 8% in 1993 and to 9% in 1994. In the following years, the co-payment proportion increased to nearly 14% and then decreased to around 11% in 1999.

Currently, the typical co-payment is the sum of two components:

- a flat amount that depends on the size of the medication pack; plus
- 100% of the portion of the price above the reference price.

Persons on very low incomes and those on unemployment benefits or social assistance are exempted from most co-payments. Children up to the age of 18 years are exempted from co-payments too. Furthermore, the amount of co-payments supported by a sickness fund member for pharmaceuticals, non-physician care and transportation is limited to a maximum of 2% of the member's gross income, if the member is single. Lower maximums apply to families.

Drugs Covered and the Listing Process

Drug licensing for new drugs became mandatory only in 1976. The licensing of pharmaceuticals is currently the most regulated area of medical technologies in Germany. The admission of pharmaceuticals for humans into the market falls under the responsibility of the Paul-Ehrlich-Institute (blood, blood products, sera and vaccines) and the Federal Institute for Pharmaceuticals and Medical devices (BfArM) (all other drugs).

The criteria for licensing pharmaceuticals are scientifically proven efficacy and safety. Cost-effectiveness is of no importance. This has led to the increasing admission of active substances with merely minor modifications rather than the introduction of real product innovations.

In early 1999, the Federal Committee passed completely new pharmaceutical guidelines. These explicitly state that the licensing of pharmaceuticals is a necessary but not sufficient precondition for coverage by the social health insurance system. Apart from certain legal exclusions, the guidelines list five reasons for not including a drug in the benefits' list:

1. it is not necessary for treating diseases
   (e.g. Viagra, drugs for common colds, laxatives, etc.);
2. other pharmaceuticals are more effective and/or cost effective;
3. non-pharmaceutical strategies are more effective and/or cost-effective;
4. it is part of a combination of therapies if a single therapy is more effective and/or cost-effective;
5. there is no proof of its effectiveness

Originally, in 1993, the Health Care Structure Act had called for a positive list of reimbursable pharmaceuticals to be developed by the Federal Ministry of Health. This regulation, however, was dropped only weeks before it was supposed to be put in effect on January 1st 1996. The Federal Minister of Health decided not to pursue the idea of a positive list and justified this by citing the successful cost-containment measures in the pharmaceutical sector, the otherwise rising costs for chronic patients due to OTC purchases and, most importantly, the threat to smaller pharmaceutical companies. While this decision was welcomed by the pharmaceutical industry, it was faced with criticism.

However in the year 2000, the Reform Act of SHI has again introduced the mandate for a positive list, which has to be passed by the Federal Council upon proposal from the Federal Ministry of Health.

Cost Control Features

Pharmaceutical expenditure has been an effectively controlled area of German health care expenditure. The major elements of this ability to control drug expenditure are cost-sharing measures, reference prices (introduced in 1989) and stakeholder controls.

Reference-Based Pricing of Medication

With the exception of innovative drugs that have been patented since 1996, pricing is determined by a reference system, with prices for new drugs based upon the prices of existing drugs that provide the same therapeutic benefit. As a concession to the pharmaceutical industry, innovative drugs patented after 1995 are excluded from reference-based pricing. This exclusion hampers the efficiency of reference-based pricing. However, each individual insurance fund can negotiate with pharmaceutical manufacturers on behalf of their covered patients. The German pricing system results in brand name drug prices that are an average of 35% lower than prices in the U.S. for example.

The idea behind reference prices was to establish an upper limit for the costs reimbursable through the sickness funds. This stipulates that reference prices are defined for drugs containing the same substance, for drugs with similar substances and for drugs with comparable efficacy.

Tighter regulations were introduced for the setting of reference prices (i.e. they now may not be higher than the highest price in the lowest third of the market). For 202 out of a total of 446 drug groups with reference prices, prices were supposed to be lowered from April 1st 1999 for a saving of approximately DM 550 million. However, this reduction was stopped legally and reference prices altogether came under legal threat when a pharmaceutical company successfully sued. Therefore, the health minister plans to put reference prices on a new legal basis, by fixing them through an ordinance issued by the Ministry of Health.

For patients, reference prices had two effects. Generally, pharmaceuticals priced at or below the reference price for that substance were co-payment free. More specifically, if a patient with insurance sickness fund wished to use a more expensive alternative, he or she had to pay the difference out of his or her own pocket. For all prescribed drugs without a reference price, the patient had to pay a co-payment.

Stakeholder Controls - Doctor-Controlled Prescription Budgets

In 1993, Germany introduced drug budgets at the level of the federal physicians' association. Under this approach, the federal physicians' association and pharmaceutical industry were held financially accountable for over-spending. This measure resulted in an initial drop of 30% in expenditures on prescriptions issued by office-based physicians. This drop could be attributed, in part, to shifting of treatment to specialists and hospitals. Thereafter, expenditures on pharmaceuticals continued to increase at the same rate as in the past. Budgets have been exceeded on some occasions since 1994; however, penalties were not applied.

When it came to power in 1998, the Schröder government warned doctors that it would make them pay out of their own pockets if they exceeded the spending limits on prescription drugs. Much of the effect was good. Some doctors who were previously over-prescribing began better reducing unnecessary prescriptions, or turned to less expensive, generic medicines. But there were also bad effects. Sometimes doctors avoided prescribing the best, but also the most expensive, medicines. Worse, some turned away patients who needed particularly expensive medication. Many, however, reckoning that they, not some bureaucrats, know what was the best medical practice, simply carried on as before.

As the government continued to talk of potential sanctions, doctors replied with demonstrations and even strikes. What especially angered them was a decision to make all doctors within a given region collectively responsible for over-prescription.

In response to this, Germany's new health minister recently lifted the collective financial penalties imposed on doctors who exceed spending limits on prescription drugs, which did not help keep down soaring health costs.

Statistical Analyses

An analysis of prescriptions is undertaken annually by a sickness fund affiliated institute. Although this report does not provide patient data, which could be used to evaluate appropriateness, it is nevertheless of value for the assessment of trends in physicians' prescribing behaviour.

Financial Results

The following tables compare the cost of prescription drugs in Germany and in Canada.

Table G-1
Ratio of Pharmaceuticals to Total Health Expenditure

	Germany					Canada
	Government (Million $US[2])	Non-gov (Million $US)	Total (Million $US)	Total Exp. (Million $US)	Ratio	Ratio
1990	13,230	4,869	18,099	127,167	14.23%	11.26%
1991	13,714	4,523	18,236	127,974	14.25%	11.53%
1992	15,863	5,092	20,955	147,408	14.22%	12.11%
1993	13,209	5,369	18,578	149,193	12.45%	12.68%
1994	14,203	5,661	19,864	160,620	12.37%	12.73%
1995	15,820	6,061	21,882	177,829	12.30%	13.41%
1996	16,814	6,442	23,255	187,353	12.41%	13.62%
1997	16,285	7,113	23,398	191,696	12.21%	14.33%

Table G-2
Increase in the Cost of Pharmaceuticals and Total Health Expenditure Germany vs. Canada – 1990 to 1997

	Pharmaceuticals			Total Health Expenditure
	Government	Non-gov	Total	
Germany				
Ann. increase	2.63%	4.85%	3.26%	5.26%
Pop. growth	0.42%	0.42%	0.42%	0.42%
Gen. inflation	2.85%	2.85%	2.85%	2.85%
Net increase	-0.64%	1.58%	-0.01%	1.99%
Canada				
Ann. increase	7.08%	7.89%	7.62%	4.05%
Pop. growth	1.09%	1.09%	1.09%	1.09%
Gen. inflation	2.38%	2.38%	2.38%	2.38%
Net increase	3.61%	4.42%	4.15%	0.58%

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[2] All of these figures are in US dollars adjusted for the Purchasing Power Parity between Germany and the US (i.e. adjusted to eliminate the differences in price levels between both countries)

Table G-1 shows that the cost of pharmaceuticals, as a proportion of total health expenditures, has increased in Canada whereas it has decreased in Germany. Table G-2 sheds some light on this by showing that pharmaceutical expenditure has increased much more slowly in Germany than in Canada, whereas the increase in total health expenditures is similar in both countries. When we exclude the impact of inflation and population growth, the pharmaceutical expenditure has increased by an average of 4.15% per year in Canada, whereas it remained stable in Germany.

Since these tables compare the cost of all pharmaceuticals, including not only prescription drugs but also over the counter drugs, extra care is required when interpreting the results. Table G-1 also shows that pharmaceuticals in Germany once used to make up a greater portion of total health care expenses than in Canada, but since 1993 the situation has reversed.

On the other hand, Table G-3 shows that the cost of pharmaceuticals, when expressed in Canadian currency has increased at approximately the same rate, on a per capita basis, in Germany and in Canada. On the other hand, comparing the figures of Table G-3 with those of Table G-2 shows that pharmaceutical costs per capita in Germany increased faster in $CDN (5.28%) than in DM (2.84% = 34.26% - 0.42). This may be due, to some extent, to the exchange rate, as the Canadian Dollar lost ground to the Deutsch Mark.

Table G-3
Comparison of Per Capita Pharmaceuticals Cost – Germany vs. Canada

	Germany				Canada		
	Total cost for pharmaceuticals Million $US	Exchange factor*	Pop. (million)	Cost / capita $ CDN	Total cost for pharmaceuticals $ Million CDN	Pop. (million)	Cost / capita $ CDN
1990	$18,099	0.73414	79.4	$167.38	$6,882	27.7	$248.46
1991	$18,236	0.82869	80.0	$188.94	$7,652	28.0	$273.27
1992	$20,955	0.80355	80.6	$208.92	$8,462	28.4	$297.97
1993	$18,578	0.84635	81.1	$193.81	$9,092	28.7	$316.80
1994	$19,864	0.80999	81.4	$197.64	$9,347	29.0	$322.29
1995	$21,882	0.92998	81.6	$249.24	$9,998	29.4	$340.06
1996	$23,255	1.01219	81.9	$287.46	$10,251	29.7	$345.16
1997	$23,398	0.88631	82.1	$252.60	$11,306	30.0	$376.87
Annual increase	3.26%		0.42%	5.28%	6.40%	1.00%	5.35%

* This factor converts the US figures adjusted for purchasing power parity (Germany / US) to the Canadian cost only adjusted for the currency exchange rate. It is equivalent to taking the real cost in Deutsch Marks and applying the currency exchange rate to obtain a figure in Canadian dollars.

The British Approach

The United Kingdom's Prescription Drug Program

The United Kingdom (UK) is the fifth largest producer of pharmaceuticals in the world, and most of the world's largest pharmaceutical companies have a presence there.

Health care in the UK is provided mainly by the National Health Service (NHS), although there is now a growing private sector. The NHS provides universal coverage and its founding principles of equity, comprehensiveness and no charge on delivery have remained with only a few exceptions (e.g. dental, ophthalmic, and prescription charges).

The Insurance program

Eligibility

The National Health Service (NHS) came into operation in 1948. It introduced the principle of collective responsibility by the state for a comprehensive health service, which was to be available to the entire population free of charge at the point of use. The current statute specifying the scope of the NHS is the National Health Service Act 1977. This Act requires the Secretary of State to promote a comprehensive health service designed to secure improvement in the physical and mental health of the population and to develop services for the prevention, diagnosis and treatment of illness.

Under the Act, all hospital and specialist services are to be provided free-of-charge, unless the law expressly permits charges to be made. Charges may apply for drugs but, as mentioned in the following section, part of these may be reimbursed.

All persons normally resident in the UK are eligible for services through the NHS.

Major Features of the Prescription drug Insurance Program

Co-payment

Although the NHS provides generally free health care, one of the few charges to the patient is for prescription drugs. Co-payments (called "charges") on prescription drugs were first introduced in 1952 and, except for the period 1965-1968, have been in existence ever since. These charges have risen steeply over time. The standard prescription charge is currently £6.20 (approximately $14), per item irrespective of the actual cost of the drugs prescribed. Over the last 10 years, the average annual increase was 5.16%.

There are, however, widespread exemptions from charges: the elderly, pregnant women, students, people on low income, women with a child less than one year old, etc. These specific groups of people who are exempt from charges represented approximately 85% of the prescriptions dispensed in England in year 2000.

Table UK-1
Percentage of Total Prescriptions Dispensed by Category – 1990 & 2000

Category of patients	1990	2000
Non Chargeable		
- Elderly people (age 60 and over)	42%	54%
- Young people (below age 16) and students aged 16, 17 and 18	11%	8%
- Low income people	10%	13%
- War pensioners, pregnant women, etc.	15%	10%
Chargeable	22%	15%

Source : NHS – Prescriptions Dispensed in the Community, Statistics for 1990 to 2000: England

Drugs Covered by the National Health Service (NHS)

In 1993 there were approximately 1500 pharmaceuticals eligible for prescription through the NHS. Since 1985 however, there has been a Limited List (or negative list), which excludes some products from NHS prescribing on the grounds of poor therapeutic value or excessive cost.

The Selected List is not fixed and is periodically updated. Many of the products to be blacklisted are unlicensed products such as food supplements, some are already available as OTC products, but some are prescription only.

Cost Control Features

In the UK, drug prices are controlled under the pharmaceutical price regulation scheme by which the department of Health controls the maximum profit that companies are allowed to make on their sales of medicine to the NHS.

Listing Process

There is no national formulary in the UK restricting what doctors can prescribe. There is, however, the Selected List ("Black List") that specifies products in a number of therapeutic categories that are not available for prescription under the NHS. This list is determined by the "Advisory Committee on NHS Drugs". In assessing a product, the committee initially considers whether there is a clinical need.

Having decided that there is a clinical need, the committee then considers whether any other products available meet that need. If the product in question meets the same clinical need effectively and at the same or a lower price than the other products, the Committee will recommend that the product being assessed be available for prescription under the NHS. If, however, the Committee concludes that the product does not meet these criteria, the product will not be available for prescription under the NHS.

Price Controls

The prices of pharmaceuticals sold to the NHS are controlled by the Pharmaceutical Price Regulation Scheme (PPRS). The PPRS controls the maximum return that pharmaceutical companies can make on their sales to the NHS. It does not, however, control the price of individual drugs. The Scheme is negotiated every 5 or 6 years between the Department of Health and the Association of the British Pharmaceutical Industry.

The PPRS does not apply to generic medicines, OTC products, or sales from private prescriptions.

Compensation Paid to Pharmacists

There are two key components to pharmacy payments by the NHS: reimbursement and remuneration fees. Reimbursement is set at the weighted average of the list prices provided by certain wholesalers. When the actual prices paid by the pharmacist are lower than these list prices, a claw-back is applied by the NHS. As a result, both the pharmacist and the NHS benefit financially from the efforts made by the pharmacist to lower his purchasing cost. Remuneration fees include a dispensing fee per item and an overall fee for the service to patients.

The dispensing fee has declined markedly over the last 10 years, as shown in the Table UK-2.

Table UK-2
Recent Evolution of the Dispensing Fees

	Period	Dispensing Fee	Professional Allowance
-	1989	134 pence for the first 1,400 prescriptions 61.5 pence for the next 5,250 prescriptions 68 pence thereafter	Info. not available
-	Jan – Oct. 1992	151,2 pence for the first 1,700 prescriptions (/ month) 71.5 pence thereafter	5% of the base price of items dispensed
-	Nov. – Dec. 1992	159 pence for the first 1,700 prescriptions (/ month) 71.5 pence thereafter	2.5% of the base price of items dispensed
-	Oct. 2001	97.5 pence for each prescription	£ 1,460 / month / pharmacy
-	2002	87.4 pence for each prescription	£ 1,460 / month / pharmacy

Sources:
The Pharmaceutical Journal : Remuneration down; clawback up – did pharmacy pay too much for the control of entry provisions?, by Alan J. Smith
House of Commons Hansard Written Answers for 8 Jan 2002

The information in the preceding table does not show what happened between the years mentioned as it comes from different sources.

Other Cost Control Features

The Department of Health seeks to influence prescribing behaviour through the periodic distribution of leaflets containing cost comparison charts for alternative pharmaceutical products within particular therapeutic groups.

Promotion and advertising of prescription drugs to the public is prohibited. On the other hand, promotion of prescription medicines to doctors, dentists, and pharmacists is permitted by such means as representative's visits, literature, and advertising. Figures from the Association of the British Pharmaceutical Industry (ABPI) for 1995 suggest that the average proportions of industry promotional expenditure spent on various activities were: representatives: 57%, advertising: 14%, literature: 11%, and other: 18%.

Interesting Facts about the Situation in the UK

- The NHS is financed mainly through central government general taxation together with an element of national insurance (NI) contributions. In 1996-1997, 93.7% of gross spending on the NHS in England was met from these two sources. The remainder of NHS finance (6.3%) was raised through:
  - User charges (2.1%) – mainly charges for pharmaceutical prescriptions and dental charges;
  - Repayments of NHS trust interest-bearing debt (3.0%);
  - Other miscellaneous sources (1.2%) such as health authority capital repayment.
- The NHS is administered regionally; as a result, data are compiled separately for England, Scotland, Wales and Northern Ireland.
- There were 612 million prescriptions written in 1996. Of these, 77% were dispensed though pharmacies, 6% through dispensing doctors, and 17% through hospitals.
- A survey of 115 medical practices showed that about 75% of prescriptions were repeats.
- The market can be split into prescription medicines (approximately 80%) and over-the-counter (OTC) medicines (approximately 20%). Most of the growth in the market was accounted for by prescription medicines (increase of 10% between 1995 and 1996, for example). The OTC segment showed very little increase.
- Over the 10-year period running from 1990 to 2000, the number of prescriptions dispensed in England has grown by 40%, amounting to 551.8 million prescriptions, as shown in Table UK-3.
- In England, the annual number of prescriptions per head was 10 in year 1996; with an average cost of £ 8.26 per item (producing a per capita expenditure of approximately $200 CDN per year; this compares to about $385 in France and $275 in Germany). One of the main reasons for the comparatively low level in the UK is the doctors' reputedly conservative prescribing habit.
- Generic prescribing in England exceeded 50% for the first time in 1994; however, due to the fact that certain drugs prescribed generically are not available generically, the proportion of drugs dispensed generically has exceeded 50% for the first time only in year 2000, as shown in Table UK-4.
- The UK pharmaceutical industry employs about 75,000 people, of which about 20,000 are employed in R&D.
- About one third of the world's top 20 prescription drugs were discovered or developed in the United Kingdom.

Table UK-3
Number of Prescriptions Dispensed in England– 1991 - 2000

Year	Number (millions)	Prescription Items per Head
- 1991	406.5	8.4
- 1992	425.1	8.8
- 1993	445.4	9.2
- 1994	456.1	9.4
- 1995	473.3	9.7
- 1996	484.9	9.9
- 1997	500.2	10.1
- 1998	513.2	10.4
- 1999	529.8	10.6
- 2000	551.8	11.0
Avg. annual increase	3.45%	3.04%

Source : NHS – Prescriptions Dispensed in the Community, Statistics for 1990 to 2000: England

Table UK-4
Generic Prescribing and Dispensing in England – 1991 - 2000

Year	% of Prescription Drugs Prescribed generically	% of Prescription Drugs Dispensed generically
- 1991	41%	35%
- 1992	43%	36%
- 1993	47%	38%
- 1994	52%	41%
- 1995	55%	43%
- 1996	58%	45%
- 1997	60%	47%
- 1998	63%	48%
- 1999	66%	48%
- 2000	71%	52%
Avg. annual increase	6.3%	4.5%

Source : NHS – Prescriptions Dispensed in the Community, Statistics for 1990 to 2000: England

Table UK-4 shows that even though a strong effort has been made to bring doctors to prescribe more generically, the increasing gap between the proportion of drugs that are prescribed generically versus those that are actually dispensed generically reveals that a significant proportion of prescription drugs are available only as proprietary products.

Table UK-5, below, shows that even though most drugs are prescribed generically, the portion of the cost represented by the generic products is small and has increased materially only in the recent years. This is due both to the unavailability of generic substitute to certain proprietary drugs and to the lower average cost of the generic products.

Table UK-5
Generic Prescribing and Dispensing in England – 1991 - 2000

Year	% of Net Ingredient Cost for Drugs Prescribed Generically	% of Net Ingredient Cost for Drugs Dispensed Generically
- 1991	27%	14%
- 1992	29%	12%
- 1993	32%	11%
- 1994	37%	12%
- 1995	42%	13%
- 1996	44%	13%
- 1997	47%	15%
- 1998	50%	15%
- 1999	57%	18%
- 2000	62%	22%
Avg. annual increase	9.7%	5.2%

Source : NHS – Prescriptions Dispensed in the Community, Statistics for 1990 to 2000: England

Financial Results

Table UK-6 shows that, for England, the average cost per capita increased much faster than inflation during the period from 1991 through 2000. If we compare Table UK-6 with Table A-4, we get an annual increase of 8.8% for England, compared with 7.61% for Canada and 7.98% for Australia. When we take the exchange rate between the Sterling Pound and the Canadian Dollar into account, the annual increase for England becomes 10.1%. On this basis, the British system does not seem to do a better job at controlling costs than the Canadian system.

Table UK-6
Variation in the Average Cost of Prescr. Drugs per Capita in England – 1991 - 2000

Year	Average Net Ingredient Cost per Prescription Item (£)		Prescr. Items per Capita	Average Cost per Capita (£)	
	Actual	At 1990 Prices		Actual	At 1990 Prices
- 1991	6.20	5.84	8.4	52.08	49.06
- 1992	6.72	6.13	8.8	56.45	53.94
- 1993	7.09	6.30	9.2	65.23	57.96
- 1994	7.47	6.54	9.4	70.22	61.48
- 1995	7.78	6.63	9.7	75.47	64.31
- 1996	8.26	6.82	9.9	81.77	67.52
- 1997	8.73	7.01	10.1	88.17	70.80
- 1998	9.16	7.15	10.4	95.26	74.36
- 1999	9.99	7.62	10.6	105.89	80.77
- 2000	10.12	7.59	11.0	111.32	83.49
Avg. increase					
- £	5.6%	3.0%	3.0%	8.8%	6.1%
- $ CDN	6.9%	4.2%	3.0%	10.1%	7.4%

Source : NHS – Prescriptions Dispensed in the Community, Statistics for 1990 to 2000: England

Table UK-7
Ratio of Pharmaceuticals to Total Health Expenditure

	United Kingdom					Canada
	Government (Million $US[3])	Non-gov (Million $US)	Total (Million $US)	Total Exp. (Million $US)	Ratio	Ratio
1989	4,796	2,384	7,179	51,576	13.92%	11.03%
1990	5,027	2,521	7,548	55,777	13.53%	11.26%
1991	5,257	2,894	8,151	58,733	13.88%	11.53%
1992	6,113	3.575	9,689	67,820	14.29%	12.11%
1993	6,542	3,761	10,303	69,326	14.86%	12.68%
1994	6,958	4,139	11,098	72,836	15.24%	12.73%
1995	7,481	4,300	11,781	76,257	15.45%	13.41%
1996	8.213	4,844	13,057	82,929	15.74%	13.62%
1997	8,675	4,838	13,513	83,023	16.28%	14.33%

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[3] All of these figures are in US dollars adjusted for the Purchasing Power Parity between UK and the US (i.e. adjusted to eliminate the differences in price levels between both countries)

Table UK-8
Increase in the Cost of Pharmaceuticals and Total Health Expenditure United Kingdom vs. Canada – 1989 to 1997

	Pharmaceuticals			Total
	Government	Non-gov	Total	Health Expenditure
UK				
Ann. increase	7.75%	9.47%	8.31%	6.22%
Pop. growth	0.34%	0.34%	0.34%	0.34%
Gen. inflation	4.38%	4.38%	4.38%	4.38%
Net increase	3.03%	4.75%	3.59%	1.50%
Canada				
Ann. increase	7.99%	8.02%	8.00%	4.27%
Pop. growth	1.13%	1.13%	1.13%	1.13%
Gen. inflation	2.67%	2.67%	2.67%	2.67%
Net increase	4.18%	4.21%	4.19%	0.46%

Sources:

Canadian Institute for Health Information : Drug Expenditures in Canada 1985-2000

Table UK-9
Comparison of Per Capita Pharmaceuticals Cost – United Kingdom vs. Canada

Year	UK				Canada		
	Total cost for pharmaceuticals Million $US	Exchange Factor*	Pop. (Million)	Cost / capita $ CDN	Total cost for pharmaceuticals $ Million CDN	Pop. (Million)	Cost / capita $ CDN
1989	$7,179	1.27722	57.4	$159.65	$6,197	27.3	$227.12
1990	$7,548	1.13077	57.6	$148.13	$6,882	27.7	$248.46
1991	$8,151	1.42715	57.8	$201.23	$7,652	28.0	$273.27
1992	$9,689	1.33303	58.0	$222.62	$8,462	28.4	$297.97
1993	$10,303	1.22579	58.2	$216.96	$9,092	28.7	$316.80
1994	$11,098	1.26604	58.4	$240.55	$9,347	29.0	$322.29
1995	$11,781	1.42821	58.6	$287.07	$9,998	29.4	$340.06
1996	$13,057	1.36056	58.8	$302.05	$10,251	29.7	$345.16
1997	$13,513	1.47089	59.0	$336.83	$11,306	30.0	$376.87
Annual increase	7.28%		0.30%	8.65%	6.91%	1.06%	5.79%

On the other hand, Table UK-8 shows a faster net increase in the cost of pharmaceuticals in Canada than in the UK. This seems to be related to the definition of pharmaceuticals, that includes not only prescription drugs but also over the counter drugs. Another interesting conclusion from Table UK-8 is that total health expenditures have increased slower in Canada than in the UK. This must not be interpreted as meaning that Canada was able to better control its health costs, however. This may also be the reflection of a crisis in the financing of the Canadian health care system.

Table UK-7 shows that pharmaceuticals make up a greater portion of total health care expenses in the UK than in Canada but the gap between both countries is narrowing. One word of caution, however : this table is comparing total pharmaceuticals, including over-the-counter drugs.

Table UK-9 confirms the conclusion drawn from table UK-6, that is, the cost of prescription drugs (Table UK-6 compared with Table A-4) and of pharmaceuticals has increased faster, on a per capita basis, in the UK than in Canada. This result seems to contradict the result from table UK-8, which shows a greater increase in Canada than in UK. This is due essentially to the exchange rate, as the Canadian Dollar lost ground to the British Pound.

Section 3
Canadian Approaches

The Quebec Prescription Drug Insurance Program

The Quebec prescription drug insurance program is a universal prescription drug insurance program unique in North America by the scope of its coverage. It is a mixed public-private contributory plan, where the covered persons pay an annual premium and make a financial contribution when they buy a prescription drug.

Context

When the Quebec Heath Insurance Program was implemented in 1970, it included first dollar coverage of prescription drugs (without coinsurance) for people receiving social assistance benefits. With the passage of time, this approach was felt increasingly inequitable for low paid workers since the transition between social assistance (with free prescription drugs) and the lowest paid jobs (with no prescription drug coverage or with a contributory prescription drug plan) was not supported. In 1977, Quebec introduced free prescription drug coverage under the Quebec Health Insurance Plan for seniors (residents 65 years of age or older). Due to the aging of the population and the increase in the cost and utilization of prescription drugs (related to the shift to ambulatory care and the development of new, expensive drugs, among other things), the cost of this program was increasing much faster than the revenues of the province and was expected to increase even faster in the coming years.

Also, as a corollary to the shift to ambulatory care and to incite people to be treated at home whenever possible, the Quebec government had started paying prescription drugs for people who were previously treated in hospitals on an outpatient basis and who were now treated at home, since it would have paid for these drugs anyway if they had continued receiving treatment in the hospital. This program became increasingly expensive and exceedingly complex while causing growing dissatisfaction, mostly among patients who were not eligible to it, because the government paid only a limited number of drugs, and only for certain specific conditions.

As a result, the government considered abolishing this program and, in 1993, set up a committee to analyze the problems related to it. In its report, the committee recommended the implementation of a universal prescription drug program. In 1995, the Federal government launched the National Forum on Health to report on the state of health care in Canada, including the accessibility and affordability of prescription drugs. Quebec was concerned that the Forum would recommend the inclusion of prescription drugs in the provincial Medicare programs through the requirements of the Canada Health Act.

E

Quebec saw this eventuality as a threat since the Federal government would then be imposing new uncontrollable expenses to the province without necessarily providing adequate funding. It must not be forgotten that the Canada Health Act mandates first-dollar coverage, with no user fees, for all medical expenses that fall within its scope. The provincial government acted swiftly by passing the legislation creating the Quebec Prescription Drug Insurance Program in order to put the federal government in front of a fait accompli and to prevent it from expanding the scope of the Canada Health Act and require the Province to bear the full cost of prescription drugs for its residents. A few months later, the National Forum on Health tabled its report, which actually included a recommendation that publicly funded services be expanded to include all medically necessary services and, in the first instance, home care and drugs. In particular, the report recommends that medically necessary prescription drugs be made available to all Canadian residents, without deductibles or co-payments.

The Insurance program

Types of Participants:

Every Quebec resident is required to participate in a prescription drug insurance plan. However, the Act does not create a single universal plan, like the Quebec Health Insurance Plan, but rather a legal framework governing private group prescription drug insurance plans and a public plan run by the Régie de l'Assurance Maladie du Québec for people who do not have access to a private group plan.

There are four major types of participants:

- Participants to private plans
- Participants to the RAMQ plan:
    - Social assistance recipients
    - Seniors
    - Other persons not eligible for coverage under a private plan (referred to as the "adhérents"

Private group insurance plans

Basic Principle

All Quebec residents who can be covered (either as a participant or as a dependent) by an eligible group insurance plan covering prescription drugs must be covered under such a plan. Persons who may be covered by two or more eligible group insurance plans simultaneously need only to be covered under one plan.

Eligible Groups

To be allowed to provide prescription drug coverage, a group insurance plan must cover a group of persons determined on the basis of current or former employment status, profession or habitual occupation. All other types of group or individual insurance plans are prohibited to cover prescription drugs, unless their coverage is limited to the amounts that are not paid by the public plan (deductible, coinsurance and drugs not on the list).

Mandatory Coverage

Even though no employer or association is under the obligation to provide group insurance coverage to its employees or members, a group insurance plan (including a self-insured plan) providing any type of accident and sickness benefits to a group of persons determined on the basis of current or former employment status, profession or habitual occupation must cover prescription drugs. For example, an employer cannot offer short term or long-term disability insurance on a group basis without providing prescription drug coverage to both its employees and their dependents. However, a plan covering travel insurance only does not require the plan sponsor to offer prescription drug coverage.

Coverage may not be limited to the employee or participant only. The spouse and dependent children must also be covered for prescription drugs (unless they are covered under another eligible group insurance plan). The definition of dependents must be at least as generous as that provided under the Act and include the spouse, dependent children and persons with a functional disability. The spouse is a person legally married or living for at least a year in a common-law relationship. Because of the provincial laws on non-discrimination, a spouse of the same sex as the participant must now be covered under the participant's plan. A dependent child is a person under 18 years of age and subject to parental authority, or less than 26 years of age who is in full-time school attendance and who would be subject to parental authority if the person were a minor.

Setting Eligibility Rules

Plan sponsors must determine eligibility rules, within the requirements of the Act. For example, a plan may have a waiting period (a period during which a person is not yet covered). An employer may also decide to offer coverage only to certain groups of employees such as full-time employees. (In this situation, if the employer decides not to cover its part time employees for prescription drugs, then they may not be covered for any other type of accident and sickness benefits such as dental, hospital or disability income).

It is expressly forbidden to define a group using criteria based on the members' age, sex or state of health. This requirement is far-reaching since it departs from some usual practices in the field of group insurance. For example, an insurer may not exclude a person (participant or dependent) who does not present satisfactory evidence of insurability. Also, a plan that used to cover employees or retirees until age 65 may no longer invoke this age criterion to terminate their coverage. It must continue to offer coverage to active employees over beyond their 65th birthday. Regarding retirees, the employer has the choice between offering coverage for prescription drugs to all of them, regardless of age, or to none of them.

Coverage of Seniors

However, upon reaching age 65, employees or retirees who are eligible for coverage under a private group plan may elect to join the public plan for prescription drug coverage. Since these persons tend to have a higher cost of coverage than younger persons and since the premium charged by the public plan does not vary according to age, by contrast with private plans that may price coverage according to risk, they tend to choose to be covered under the public plan. However, the employer may not terminate their coverage because of age.

Prescription Drugs Covered

A plan covering prescription drugs must cover all the drugs on the list drawn up by the Minister of Health and Social Services and may not have any exclusions. For example, if a participant or dependent got injured while committing a crime or attempting to commit a suicide, the plan may exclude all medical expenses except prescription drugs.

Also, private plans are now covering drugs (such as AIDS medication) previously provided free of charge by the Quebec government under special programs. The fact that brand-name drugs are on the list published by the Minister prevents private plans to mandate generic substitution. However, a private plan may limit the reimbursement to an amount based on the cost of the generic substitute, but only if the reimbursement represents at least 75% of the cost of the brand-name drug that was prescribed by the physician. Some drugs available over the counter are included on the list and must be covered by private plans.

Deductible & Coinsurance

Plans may include a deductible that applies to prescription drugs, in whole or in part. Unlike the plan provided by the Board, the deductible for private plans may apply not only to adults but also to children. The deductible does not need to be applied on a monthly basis and it may exceed $100 / year if that is the wish of the parties to the insurance contract. However, the plan must reimburse at least 75% of the cost (over and above the deductible) of prescription drugs on the Minister's list. Furthermore, the amount (deductible + coinsurance) borne by an adult and his or her dependent children may not exceed $750/year.

Pooling

All insurers, including administrators in the case of self-insured plans, must pool the risks arising from the mandatory coverage, according to terms and conditions to be agreed upon among themselves and of which the Minister of Health and Social Services must be informed by November 1 of each year at the latest. In the absence of an agreement, the Minister may determine the pooling terms, by regulation.

The insurance industry interprets an excessive risk as the risk that a group might suffer a 20% rate increase over and above the trend factor (that is, inflation and general utilization), just because of only one person with a large claim. (The 20% is a ballpark figure that may vary somewhat over time) This concept has been accepted both by the industry and by the government. Such a concept implies that the impact of a large claim varies according to the size of the group. As a result, the portion of each claim that exceeds the following thresholds is pooled:

Group Size (Nb of certificates)	**Pooling Threshold**				
	1997-1998	**1999**	**2000**	**2001**	**2002**
< 10	$ 750	$ 750	$ 850	$1,000	$ 1,200
10 to 24	$ 1,200	$ 1,200	$ 1,500	$1,750	$ 2,000
25 to 49	$ 3,000	$ 3,000	$ 3,750	$4,400	$ 5,000
50 to 124	$ 6,000	$ 6,000	$ 7,500	$8,750	$ 10,000
125 +	not applicable	$ 50,000	$ 50,000	$ 50,000	$ 50,000

The Pooling Mechanism

The pooling is interpreted as inter-company pooling. All insurers and self-insured plans that have less than 125 certificates in Quebec pool their large claims with each other. All prescription drugs (either on the Quebec list or not) are counted. Pooling is done by group size, according to the preceding table. As a result, on a net basis, one insurer may collect money from the pool for its groups in the 50 to 124 stratum and pay money into the pool for its groups in the 10 - 24 stratum if its experience is bad for one stratum and good for the other. The number of certificates is calculated considering participants in all provinces. Hence, a group with 100 certificates, 40 of which are Quebec residents, will be assigned to the 100 - 125 stratum. Only claims incurred for Quebec residents are subject to pooling.

The last stratum (groups with 125 certificates or more) works differently from the others. It was implemented in 1999 and applies only to claims regarding drugs that are on the Quebec list. It also applies only to claims incurred under an insured plan. (Self-insured plans with more then 125 certificates being totally excluded from the pooling mechanism).

Experience on Pooled Claims

Full results of the pooling mechanism for the years 1998 and 1999 are now available. Beyond showing that the system actually works, these results are also quite interesting from an actuarial point of view as they provide insight on the phenomenon of large prescription drug claims.

The most meaningful results presented by the ***Société de compensation en assurance médicaments du Québec*** in October 2001 are shown in the following tables, extracted from the data and tables shown in a report from the Société:

Size of Group (Nb of Certificates)	Pooling Threshold (/ certificate)	Annual claim cost / certificate (Single coverage)		Annual claim cost / certificate (Family coverage)		Variation
		1998	1999	1998	1999	1999 / 1998
< 10	$ 750	$ 48.00	$ 55.50	$ 131.52	$ 152.07	+15.6%
10 - 24	$ 1 200	$ 25.06	$ 32.32	$ 68.80	$ 86.86	+27.0%
25 - 49	$ 3 000	$ 11.12	$14.72	$ 29.19	$ 38.64	+32.4%
50 - 124	$ 6 000	$ 4.92	$ 6.90	$ 11.48	$ 16.10	+ 40.2%

The above table gives an interesting illustration on the leverage impact of inflation and utilization when we are dealing with fixed thresholds.

Another interesting information provided by the Société is the occurrence of jumbo claims in groups with 124 certificates or less in 1998 and 1999:

Claim Size ($ '000)	Number of Claims 1998	Number of Claims 1999
20 - 29	39	59
30 - 39	4	10
40 - 49	2	3
50 - 59	1	0

This table shows the existence of claims for prescription drugs over $20,000 / certificate and that these claims are becoming more and more frequent.

The RAMQ plan

The public plan covers social assistance recipients, residents under age 65 who are not *eligible* for coverage under an eligible group insurance plan and residents aged 65 or over who have not *joined* an eligible group insurance plan. The following table summarizes the main provisions of the plan:

Major Features

PLAN CONDITIONS	
Deductible	
– Dependent children	$0
– Social assistance recipients with severe constraints preventing them from working	$0
– Other social assistance recipients	$8.33 / month
– Person aged 65 or over	$8.33 / month
– Other adult of any age	$8.33 / month
Coinsurance borne by the insured	
– Dependent children	0%
– Social assistance recipients with severe constraints preventing them from working	0%
– Other social assistance recipients	25%
– Persons aged 65 or over	25%
– Other adults of any age	25%
Out-of-Pocket Maximum (borne by the insured)	
– Dependent children	$0
– Social assistance recipients with severe constraints preventing them from working	$0
– Other social assistance recipients	$16.66 / month
– Persons aged 65 or over	
• *receiving the maximum guaranteed income supplement*	$16.66 / month
• *receiving a partial guaranteed income supplement*	$41.66 / month
• *not receiving the guaranteed income supplement*	$62.50 / month
– Other adults of any age	$62.50 / month ($750.00 / year)
Annual Premiums (not subject to insurance premium taxes)	
– Dependent children	$0
– Social assistance recipients with severe constraints preventing them from working	$0
– Other social assistance recipients	$0
– Persons aged 65 or over	
• *receiving the maximum guaranteed income supplement*	$0
• *receiving a partial guaranteed income supplement*	$0 to $385*
• *not receiving the guaranteed income supplement*	$0 to $385*
– Other adults of any age	$0 to $385*

* depending on their income level

Each time a patient buys a prescription drug, he/she has to pay the deductible (if any) and the coinsurance to the pharmacist, until the monthly out-of-pocket maximum is reached. The pharmacist advances the balance of the cost and is reimbursed by the RAMQ on the basis of the price of the prescription drug (as published in the List of covered prescription drugs) plus a dispensing fee which is negotiated with the pharmacists' association.

Prescription Drugs Covered

Prescription drugs covered are all drugs prescribed by a physician and mentioned on a list published quarterly by the Quebec government. Special drugs are covered only for certain conditions. Physicians are well aware of the list and tend to prescribe only drugs that are on this list. The patient presents the prescription at the pharmacy and only has to pay the deductible and coinsurance, if any. The RAMQ reimburses the pharmacist for the portion of the cost that is covered by the plan. Drugs administered in a hospital are not covered by the program since they are covered by the provincial Medicare program. There is no automatic substitution of brand drugs with generic products even though the pharmacist may operate the substitution. Therapeutic substitution (substituting a product with different active ingredients) by the pharmacist is illegal.

Financial Results

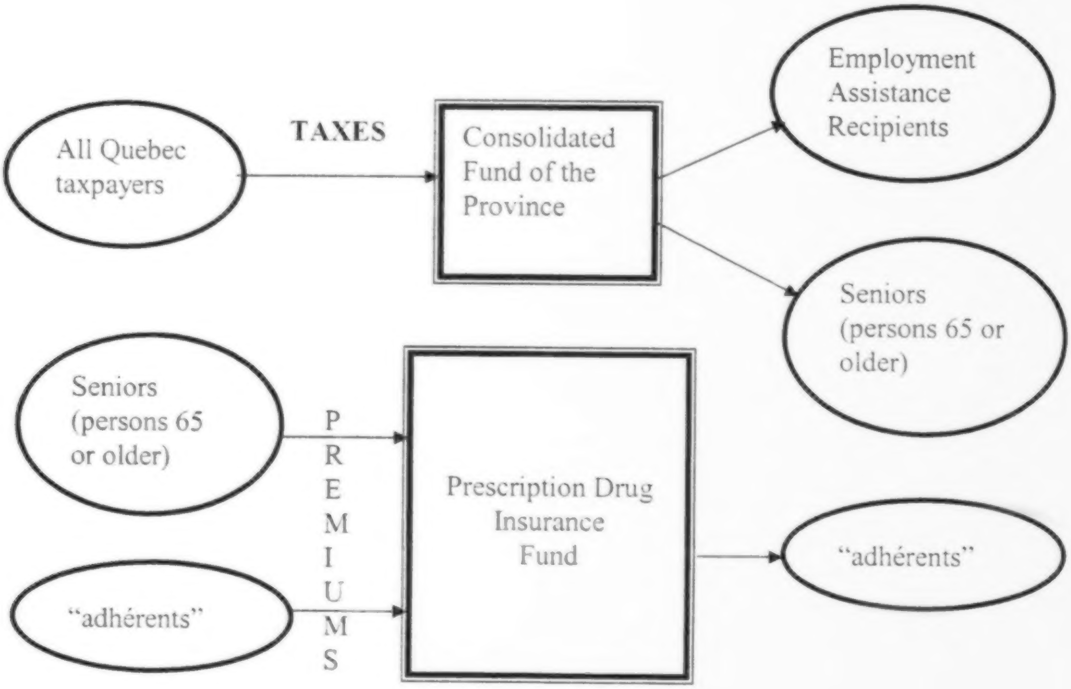
Even though the initial principles were clear on the fact that adults insured in the RAMQ plan should pay a premium that would correspond to the average cost of insurance for an adult between the ages of 18 and 65 and that seniors would pay the same premium (the excess of their cost over the average cost for adults between 18 and 65 was to be subsidized by the government), the financing of the RAMQ plan has evolved into a complex subsidization scheme, where premiums vary according to income and seniors are subsidizing the "adhérents" while being themselves subsidized by the whole population, as shown on the graph next page.

Currently, all premiums are paid to the Prescription Drug Insurance Fund while the Fund pays only the cost of prescription drugs for the "adhérents" (residents below age 65 who are not covered under a private plan). This situation can be explained by the fact that the premium paid by the participants in the RAMQ plan is based on their income. For 2001, the premium rate varies between 4% and 6% of income over a variable exemption for persons who do not have a spouse and from 2% to 3% of the combined family income over a variable exemption for persons who have a spouse. The exemption varies according to the number of children and also depends upon whether the participant has a spouse or not. In all cases, the premium is limited to $385 / adult.

As a result, a significant proportion of participants and seniors pay little or no premium. For example, even though the maximum premium is $385 / adult, the average premium paid by participants in 2001 was only approximately $247, according to preliminary data mentioned in the Montmarquette report.

RAMQ Plan

THOSE WHO PAY *THOSE WHO ARE COVERED*


All Quebec taxpayers
TAXES
Consolidated Fund of the Province
Employment Assistance Recipients
Seniors (persons 65 or older)
Seniors (persons 65 or older)
"adhérents"
PREMIUMS
Prescription Drug Insurance Fund
"adhérents"

According to the Montmarquette report, even though the maximum premium went from $175 for 1997, 1998 and 1999 to $262.50 for 2000 ($14.58 / month for the first 6 months and $29.17 for the last 6 months) and to $385 for 2001 (a 120% increase over 1999), the average premium rose only from $149 to $247 (a 66% increase). Hence, higher income participants end up subsidizing lower income participants. The resulting total of premiums paid by all participants is not sufficient to cover their cost, so they need additional funding that currently comes from the seniors' premium.

Since its inception, the RAMQ plan has been in a situation of deficit, except probably for 2001 where the premium is thought to have been sufficient to cover the cost of the "adhérents". The deficit seems to be due to a combination of factors:

- The extent of subsidization in the premium system may have been overlooked;
- The government was too slow to increase the maximum premium rate, despite a high inflation and a significant increase in utilization;
- The deductible and out-of-pocket maximum were changed from a quarterly basis to a monthly basis (e.g. the deductible went from $25 / quarter to $8.33/month, impacting persons who do not buy medication each month) with no increase in the premium rates;
- The coinsurance for employment assistance recipients with severe constraints preventing them from working was abolished on October 1st, 1999
- The deductible and out-of pocket maximum were never increased, despite the fact that the deductible increases the impact of inflation and utilization on the cost of the plan.

Notwithstanding the deficits incurred by the RAMQ plan over the years, the major problem has been the increase in the cost supported by RAMQ. This cost is equal to the total cost of insured prescription drugs, minus the direct cost control features (deductible & coinsurance). As to the cost supported by the government, it is equal to the RAMQ cost minus the premiums collected.

The following tables (Q-1 to Q-4), presenting the experience of the RAMQ plan since the *Act Regarding Prescription Drug Insurance* came into full force (Jan. 1st, 1997) show interesting details regarding the components of the cost increases.

Table Q-1A
Evolution of Total Cost Supported by RAMQ 1997-2000

	Cost Component					
	Total Cost (Table Q-3)		**Cost Control Features (Q-2)**		**RAMQ Cost**	
Year	**$ Million**	**Variation**	**$ Million**	**Variation**	**$ Million**	**Variation**
1997	1,119.4		286.9		832.5	
1998	1,291.8	15.4 %	302.4	5.4 %	989.4	18.9 %
1999	1,503.8	16.4 %	327.6	8.3 %	1,176.2	18.9 %
2000	1,788.6	18.9 %	351.8	7.4 %	1,436.8	22.2 %
Avg. increase		16.9 %		7.0 %		20.0 %

Source :RAMQ – Annual Statistics 2000, Table 5.04

Table Q-1A shows an average increase of 16.9% / year for the total cost of the insured prescription drugs and that this increase has been accelerating since 1997. To gain a clearer understanding of the situation, it is necessary to analyze these results on a per capita (per insured) basis.

Table Q-1B shows the evolution of the insured population over the same period. There is a sharp decrease in social assistance recipients, a very small increase in the number of seniors and a material increase in the number of "adhérents". The recent reduction in the number of seniors covered may be explained in part by the fact that approximately 35,000 seniors have opted out of the plan, being covered by their former employer.

Table Q-1B
Evolution of the Population Insured under the RAMQ Plan 1997-2000

	Number of Insured Persons			
Year	**Social Assistance Recipients**	**Seniors**	**"Adhérents"**	**Total**
1997	746,507	856,227	1,391,941	2,994,675
1998	697,127	872,211	1,510,485	3,079,823
1999	640,895	874,204	1,609,848	3,124,947
2000	599,429	859,026	1,675,605	3,134,060
Avg. increase	-7.1 %	0.1 %	6.4%	1.5 %

Source :RAMQ – Annual Statistics 1997, Table 56; Annual Statistics 1998, Table 51; Annual Statistics 1999, Table 5.06, Annual Statistics 2000, Table 5.06

Table Q-1C is the counterpart to Q-1A, showing results on a per capita (per insured basis). Since it is the result of the combination of three very different populations (social assistance recipients, seniors and "adhérents", the per capita cost is not a very good measure of the average cost of prescription drugs in Quebec. However, the trend is very meaningful as it shows the details of the increase in the cost of the RAMQ plan once the impact of population changes is removed.

Table Q-1C
Evolution of Cost Supported by RAMQ 1997-2000 per Capita (/Insured Person)

	Cost Component					
	Total Cost / Insured		Cost Control Features		RAMQ Cost / Insured	
Year	$	Variation	$	Variation	$	Variation
1997	373.75		95.79		277.96	
1998	419.44	12.2 %	98.19	2.5 %	321.25	15.6 %
1999	481.22	14.7 %	104.83	6.8 %	376.39	17.2 %
2000	570.70	18.6 %	112.25	7.1 %	458.45	21.8 %
Avg. increase		15.1 %		5.4 %		18.2 %

Table Q-1C shows an average increase of 15.1% / year for the total cost of the insured prescription drugs on a per capita basis and that this increase has been accelerating since 1997. The table also shows that the cost borne by RAMQ has been increasing faster than the cost of the insured services, because the cost control features did not keep pace with the increase in the cost of insured services.

Table Q-2 examines the impact of the cost control features over the same period, in dollar amounts:

Table Q-2
Evolution of Cost Control Features 1997-2000 : Deductible & Coinsurance

	Cost Component					
	Deductible		Coinsurance		Total	
Year	$ Million	Variation	$ Million	Variation	$ Million	Variation
1997	116.4		170.5		286.9	
1998	111.5	-4.3 %	190.9	12.0 %	302.4	5.4 %
1999	113.9	2.2 %	213.7	12.0 %	327.6	8.3 %
2000	111.7	-2.0 %	240.1	12.3 %	351.8	7.4 %
Average		-1.4 %		12.1 %		7.0 %

Source :RAMQ – Annual Statistics 2000, Table 5.04

Table Q-2 shows that both the deductible and the coinsurance failed to keep pace with the cost increases shown in Table Q-1A. These two features acted very differently from each other, however. The coinsurance produced savings that increased at 12.1% / year. Since the coinsurance is a flat percentage of the eligible expenses, it could have been expected to increase at the same rate as the total cost (16.9% in Table Q-1A). The main reason why it did not is the fact that the out-of-pocket maximum did not increase at all.

An example can help understand this problem. Let us assume that a social assistance recipient (who is subject to a $200 / year out-of pocket maximum) buys $600 of prescription drugs in 1997 and that the cost of his medication increases at a rate of 15% /year. This person will pay the following coinsurance amounts:

	Purchase		Coinsurance	
Year	**Amount**	**Variation**	**Amount**	**Variation**
1997	$ 640		$160.00	
1998	$ 736	15.0 %	$184.00	15.0 %
1999	$ 846	15.0 %	$200.00	8.7 %
2000	$ 974	15.0 %	$200.00	0.0 %
Average		15.0 %		7.7%

When this person reaches $800 in purchase of prescription drugs, the coinsurance is topped by the $200 annual out-of-pocket maximum. It then ceases to work as an effective cost sharing device.

On the other hand, the deductible did not change at all. A constant deductible can significantly increase the impact of inflation and increasing utilization, as the following example shows. Let us assume that an "adhérent" (who is subject to a $100 / year deductible) buys $200 of prescription drugs in 1997 and that the cost of his medication increases at a rate of 15% /year. This plan will pay the following amounts for this person:

	Purchase		Deductible		Charge to the Plan	
Year	**Amount**	**Variation**	**Amount**	**Variation**	**Amount**	**Variation**
1997	$ 200		$ 100		$ 100	
1998	$ 230	15.0 %	$ 100	0.0 %	$ 130	30.0 %
1999	$ 265	15.0 %	$ 100	0.0 %	$ 165	26.9 %
2000	$ 304	15.0 %	$ 100	0.0 %	$204	23.6 %
Average		15.0 %		0.0 %		26.8 %

This example shows the risk of using a deductible that is material, yet non-indexed. As long as the deductible is not indexed according to the general cost increase, it will accelerate the increase in the cost supported by the plan.

As shown in Table Q-3, utilization (the increase in the number of prescriptions per capita) has been a more important cost driver than the average increase in the cost per prescription.

Table Q-3
Evolution of Major Cost Components 1997-2000 : Cost / Prescription & Nb of scripts

	Cost Component					
	Cost / Prescription		Nb. Of Prescriptions		Total Cost	
Year	$	Variation	Million	Variation	$ Million	Variation
1997	24.70		45.32		1,119.4	
1998	25.98	5.2 %	49.73	9.7 %	1,291.8	15.4 %
1999	27.43	5.6 %	54.82	10.2 %	1,503.8	16.4 %
2000	28.88	5.3 %	61.93	13.1 %	1,788.6	18.9 %
Avg. increase		5.3 %		11.0 %		16.9 %
Avg. population incr.		n/a		1.5 %		1.5 %
Avg. net increase		5.3 %		9.5 %		15.4 %

Source :RAMQ – Annual Statistics 2000, Table 5.04

Table Q-4 shows that the major reason why the cost / prescription did not increase as markedly as in the private sector is the fact that the dispensing fee negotiated between the Quebec government and the pharmacists regarding drugs dispensed to persons covered by RAMQ has been remarkably stable over the 1997-2000 period.

Table Q-4
Evolution of Major Cost Components 1997-2000: Cost / Prescription

	Cost / Prescription					
	Dispensing Fee		Ingredients		Total	
Year	$	Variation	$	Variation	$	Variation
1997	6.69		18.01		24.70	
1998	6.66	-0.4 %	19.32	7.3 %	25.98	5.2 %
1999	6.71	0.8 %	20.72	7.2 %	27.43	5.6 %
2000	6.81	1.5 %	22.07	6.5 %	28.88	5.3 %
Average		0.6 %		7.0 %		5.3 %

Source :RAMQ – Annual Statistics 2000, Table 5.04

Going back to Table Q-3, this table raises a major question that was also raised in the Montmarquette report. If we can trace a significant part of the cost increase back to an increase in utilization, ***it becomes rather futile to try to address the issue of the rapidly increasing cost of prescription drug public insurance on a stand-alone basis. In other words, the more a society uses medication to replace treatments that were previously provided by hospitals, physicians and surgeons, the more apparent it becomes that the cost of prescription drugs increases both as a proportion of total health expenses and as a proportion of the total goods and services produced or used by this society.***

However, one must not blindly accept the theory saying that prescription drugs save money to the health care system by replacing more expensive treatments. While this may be true of certain products, other products may have an opposite impact by delaying surgeries until a time when a person is in worse shape, making the surgery more difficult and expensive. Also, the cost of non-compliance, including the cost of health services required as a result of taking conflicting medication, increases with the use of prescription drugs in the society. According to a recent analysis, the cost of non-compliance was greater than the annual retail cost of all prescription medication in Canada *(Dr. Robert Coambs, 1998).*

According to the Montmarquette Committee, one of the major underlying problem is that the various subsystems that make up the whole health care system are managed independently, using a silo-type approach that does not make it possible to assess or quantify the totality of advantages and costs of prescription drugs.

Conclusion Drawn from the financial Results

The main cost driver seems to have been the utilization of prescription drugs that increased faster than anything else.

The single most important conclusion that can be drawn from the preceding tables is that the cost of providing prescription drugs to the whole population or to a subset of it is due to continue to increase faster than inflation, faster than the total health expenses and faster than the economy as a whole. This situation would not necessarily be bad if the increase in the cost of prescription drugs were counterbalanced by savings elsewhere in the health care system, because of the use of prescription drugs to treat medical conditions that were previously treated with more expensive resources. However, this has never been proved satisfactorily as most models developed to support this theory relate the increased use of prescription drugs to subjective productivity gains and yet fail to consider the cost of non-compliance

One must not overlook the fact that if the pharmacist's dispensing fee had been a fixed percentage of the cost of each prescription drug, the cost per prescription would have increased at a rate of 7% per year, which is way over the general inflation rate. An important point to make here is that even if the government decided to freeze the price of prescription drugs, the cost per prescription would still continue to increase, as the prescribing pattern of doctors changes.

Pharmaco-Economics

The following example shows how inflation can be created artificially, and how it can still be justified on the basis of pharmaco-economics. Doctors can treat a sinusitis with any of the four following products :

- Amoxicillin : an old antibiotic to which some bacteria may now be resistant
- Erythromycin : a possibly more efficient antibiotic with adverse side effects for approximately 1/3 of patients
- Ceclor, a newer antibiotic
- Biaxin, an even newer antibiotic strongly recommended for the treatment of sinusitis

Now, if we have the following prescription patterns:

	Approximate cost	**Prescription Pattern**		
Drug	**/ Treatment**	**Year 1**	**Year 2**	**Year 3**
Amoxicillin	$ 17.00	50 %	40 %	30 %
Erythromycin	$ 25.00	25 %	25 %	20 %
Ceclor	$ 50.00	15 %	20 %	25 %
Biaxin	$ 100.00	10 %	15 %	25 %
Average Cost		$ 32.25	$ 38.05	$ 47.60
Variation			18.0 %	25.0 %

The preceding example shows how we can get double-digit inflation without introducing any new product and while the price of prescription drugs is frozen. Pharmaceutical companies would recommend that doctors switch to the more expensive drugs as there is a risk that, with cheaper drugs, the patient incurs side effects or that the infection will not be cured and that the patient will have to see the doctor again, thus creating an additional cost to the health care system.

This phenomenon has another impact. If the ultimate payer of the prescription drug is the employer through a traditional group insurance plan, the plan should be designed as to encourage the use of the cheaper drugs, probably by reimbursing a higher portion of the cost of a generic drug versus a brand drug, foster the use of Amoxicillin and Erythromycin, that are generic products. The employer is not very much concerned with the risk that the patient may need a second visit to the physician as this visit will be paid by the government.

On the other hand, for a condition more severe that prevents an employee from working, the employer would presumably encourage the use of the more efficient drug, even if it is much more expensive, in order to bring the employee back to work as soon as possible. But if the employee does not need to be replaced (for example, if the employee is salaried and will catch up when he returns to work,) the incentive to pay for the more expensive treatment is greatly reduced. Now, if the patient is a social assistance recipient, should he be denied access to the best, more expensive drug on the grounds that he does not need to return to a job that he does not have?

On the basis of pharmaco-economics, pharmaceutical companies justify the introduction of ever more expensive drugs and the switch from older, cheaper drugs to newer, more expensive drugs. Unfortunately, the pharmaco-economical analyzes performed by pharmaceutical companies do not seem to have been the subject of any widely published follow-up once a new drug is put on the market.

Pharmaco-economics is quite a complex matter and it is very difficult to quantify the impact of a new drug from a global economic standpoint.

The future of prescription drug insurance in Quebec

The Act respecting prescription drug has been in force for almost 6 years. During this period, the system has been criticized by various persons and by various groups. Some of the alleged criticisms are:

- The deductible and coinsurance prevent some of the poor from obtaining drugs that they need;
- Private plans are not required to pay for some drugs that are covered under the RAMQ plan for certain exceptional conditions;
- The cost of the public plan is increasing in an uncontrollable manner;
- Risks may not be appropriately shared between the RAMQ and private insurers, as there is no pooling between RAMQ and the insurers;
- The pooling process may harm smaller insurers;
- The current system does not allow insurers to perform drug utilization review;
- The currents system does not foster more efficient care, as it does not provide for personal information to be shared between insurers and RAMQ and can act as a barrier to a centralized patient file;
- If everyone was in the same universal plan run by RAMQ, the Quebec government would have a stronger bargaining power with the pharmaceutical companies and could better control costs;
- The premium rate in the RAMQ plan is increasing too fast from a political point of view;
- The RAMQ plan is in deficit;
- It is rather easy for people who are not insured in a private plan to avoid participating in the RAMQ plan (and paying the $385 premium) by pretending to be insured in a private plan as there is no procedure for verifying who is covered by what insurer.

All the above criticisms are subject to discussion and interpretation by the various parties involved in the coverage of prescription drugs.

Back in 1996, when the law was passed, strong representations from the insurance industry convinced the Quebec government to allow private group insurance plans to cover prescription drugs, rather than putting everyone in the RAMQ plan.

The Quebec government has recently considered the possibility of putting everyone in the RAMQ plan and has set up a committee, chaired by Professor Claude Montmarquette, whose mandate was to formulate recommendations on the relevance and feasibility of a public universal prescription drug insurance program along with funding approaches to adopt in order to foster equity, economic efficiency and global management of the health care system.

Major Recommendations issued by the Montmarquette Committee

The committee issued seven major recommendations and a number of additional points of view. These recommendations are listed below and explained in Appendix A:

- The Committee does not recommend the implementation of a public universal prescription drug insurance program. Instead, the Committee recommends maintaining the joint, private-public character of the current program.
- The Committee recommends that the mandatory character of participation to the general program of prescription drug insurance be maintained.
- The Committee recommends maintaining the financial participation of the insured, by the means of premiums and of a financial contribution in the form of coinsurance at the time the insured purchases prescription drugs.
- The Committee recommends a more transparent and more equitable financing of the public prescription drug insurance plan.
- The Committee recommends that data exchange between RAMQ and the Ministry of Revenue be facilitated in order to improve fairness in the financing of the plan.
- The Committee recommends a review of the criteria used to determine whether a drug must be included on the list of prescription drugs reimbursed or not. The Committee also recommends that the advantages and the costs of the current prescription drug reimbursement formula be re-evaluated.

- The Committee recommends the creation of three mechanisms aiming toward a better control of the utilization of prescription drugs:
  i) A fund financed by the pharmaceutical industry, with the participation of the government, to be used for implementing measures in order to follow-up on the utilization of prescription drugs;
  ii) Consensus Conferences on the recommended utilization of prescription drugs (the recommendations should be evidence-based);
  iii) A program of preventive disease management.

Course of Action Envisioned by the Quebec Government

According to preliminary information, the Quebec government was said to be considering the following course of action:

- The deductible would be abolished, because:
  - ➢ It is difficult to understand by the lay man;
  - ➢ People who have better knowledge of the system can go around the deductible by timing their purchase of medication appropriately or requesting a supply of medication that will last long enough so that they will skip their next deductible;
  - ➢ The deductible accelerates the impact of inflation

- The coinsurance paid by the patient would be increased from 25% to 35% or 40%
  - ➢ Being proportional to the cost of medication bought, the impact of coinsurance is self-indexed, so it is a more efficient cost sharing device than a deductible
  - ➢ On the other hand, there is concern that with a 40% coinsurance supported by the patient, less affluent persons would lose the benefit of insurance as one can question whether a scheme that pays only a little more than 50% of the cost of insurable expenses is still an insurance scheme.

On May 8, 2002, the Minister of Health & Social Services tabled a Bill to restore the financial balance of the RAMQ plan. This Bill rejects the course of action previously considered and proposes updating the cost-sharing features, according to the following table:

Major Features (proposed changes are in bold character)

PLAN CONDITIONS	**Current**	**Proposed**
Deductible		
– Dependent children	$0	$0
– Social assistance recipients with severe constraints preventing them from working	$0	$0
- Other social assistance recipients	$8.33 / month	$8.33 / month
– Person aged 65 or over, receiving maximum GIS	$8.33 / month	$8.33 / month
– Other person aged 65 or over	$8.33 / month	**$9.13 / month**
– Other adult of any age	$8.33 / month	**$9.13 / month**
Coinsurance borne by the insured		
– Dependent children	0%	0%
– Social assistance recipients with severe constraints preventing them from working	0%	0%
- Other social assistance recipients	25%	25%
– Person aged 65 or over, receiving maximum GIS	25%	25%
– Other person aged 65 or over	25%	**27.4%**
– Other adults of any age	25%	**27.4%**
Out-of-Pocket Maximum (borne by the insured)		
– Dependent children	$0	$0
– Social assistance recipients with severe constraints preventing them from working	$0	$0
- Other social assistance recipients	$16.66 / month	$16.66 / month
– Persons aged 65 or over		
• *receiving the maximum guaranteed income supplement*	$16.66 / month	$16.66 / month
• *receiving a partial guaranteed income supplement*	$41.66 / month	**$45.67 / month**
• *not receiving the guaranteed income supplement*	$62.50 / month	**$68.50 / month**
– Other adults of any age	$62.50 / month ($750.00 / year)	**$68.50 / month** **($822.00 / year)**
Annual Premiums (not subject to insurance premium taxes)		
– Dependent children	$0	$0
– Social assistance recipients with severe constraints preventing them from working	$0	$0
- Other social assistance recipients	$0	$0
– Persons aged 65 or over		
• *receiving the maximum guaranteed income supplement*	$0	$0
• *receiving a partial guaranteed income supplement*	$0 to $385*	**$0 to $422***
• *not receiving the guaranteed income supplement*	$0 to $385*	**$0 to $422***
– Other adults of any age	$0 to $385*	**$0 to $422***

* depending on their income level

The major goal of this Bill is to have the patients pay a reasonable part of the cost of their medication. This is done by increasing the deductible, coinsurance and out-of-pocket maximum for those who can afford it. Hence, children and social assistance recipients with severe constraints preventing them from working would continue to have free and unlimited access to medication. The cost-sharing features would be frozen at their current level for the other social assistance recipients and the seniors receiving the maximum amount of the Guaranteed Income Supplement, who represent the most vulnerable segment of the population.

Other features of the Bill tabled May 8 are:

- The creation of the "Conseil du Médicament" (Medication Council) that will replace and include the consultative council of pharmacology, the prescription drug utilization review committee and the prescription drug utilization review network. This new body will assist the Minister in preparing the drug formulary (list of covered prescription drugs) and performing drug utilization review
- New criteria for including new prescription drugs on the formulary, such as:
  - Therapeutic value of the medication
  - Fairness of pricing and cost/efficiency ratio of the proposed medication
  - Impact of the proposed medication on the health care system and public health
  - Equitable and reasonable access to medication required by the health of the patient
- More stringent controls on the collection of premiums as it is estimated that currently approximately 80,000 to 100,000 insured persons (7% of the "adhérents") escape paying their premium
- Administrative modifications regarding early renewals of prescriptions and prescription for longer supplies

The Ontario Drug Benefit Program and the Trillium Drug Program

The Province of Ontario has two distinct public prescription drug insurance programs:

- The Ontario Drug Benefit (ODB) Program
- The Trillium Drug Program

Both programs are administered by the Drug Programs Branch of the Ministry of Health and Long-Term Care. Even though it has a distinct focus and distinct features, the Trillium Drug Program is part of the ODB.

The Ontario Drug Benefit

Types of Participants:

The Ontario Drug Benefit (ODB) Program covers most of the cost of prescription drug products listed in the Ontario Drug Benefit (ODB) Formulary for the following groups of residents:

- People 65 years of age and older
- Residents of long-term care facilities
- Residents of Homes for Special Care
- People receiving professional services under the Home Care program
- People receiving social assistance
- Trillium Drug Program beneficiaries

Prescription Drugs Covered

As long as the drug products are prescribed by an authorized Ontario prescriber, the ODB Program covers:

- Approximately 3,000 quality-assured prescription drug products
- A number of limited-use drug products
- Some nutritional products
- Some diabetic testing products

Deductible & Co-payment

Single seniors (people aged 65 or older) who have an annual income of $16,018 or more and seniors in couples with a combined annual income of $24,175 or more pay a $100 deductible per senior before they are eligible for drug coverage.

After these seniors pay the deductible, they then pay up to $6.11 toward the dispensing fee each time they fill a prescription for a covered drug product in Ontario in the benefit year.

All other ODB eligible people may be asked to pay up to $2 as a co-payment each time they fill a prescription. The benefit year for all ODB recipients starts on August 1 and ends on July 31 of the following year.

Premiums

No premium is charged for the Ontario Drug Benefit.

Cost Control Features

Drug Formulary

Cost control is achieved partly by managing the list of prescription drugs covered and encouraging substitution of expensive drugs with less expensive ones.

The Ontario Drug Benefit Formulary/Comparative Drug Index (ODB Formulary/CDI) identifies drug products designated as benefits under the program, as well as those brands of drugs that are considered to be interchangeable, and serves as a prescribing and reimbursement guide for doctors and pharmacists. Drugs listed in the ODB Formulary/CDI are available to ODB-eligible recipients.

Products listed in the ODB Formulary/CDI are reviewed on a continuous cycle with supplements adding or changing benefits as required. The Ontario Drug Benefit Act and the Drug Interchangeability and Dispensing Fee Act provide the legislative framework under which the program is administered.

The Drug Programs Management section of the Drugs Program Branch is responsible for the quality assessment of drugs to be listed (or already listed) in the ODB Formulary/CDI, through laboratory and technical evaluation of submissions from pharmaceutical manufacturers.

Utilization Review and Prescription Management

The other main cost control feature will be centered around drug utilization review, with the implementation of the Health Network, linking nearly 2500 Ontario pharmacies with the ODB program to process ODB drug claims and perform drug use review. The Ontario Drug Programs Project section of the Drugs Program Branch is responsible for this project.

The Pharmaceutical Services Coordination section of the branch provides liaison services relating to the pharmaceutical industry, pharmacists and pharmaceutical care, professional organizations, other government agencies as well as physician liaison services relating to prescribing guidelines.

The Trillium Drug Program

The Trillium Drug program is a voluntary drug insurance program that helps people who have high drug costs in relation to their income and are not covered by the Ontario Drug Benefit Program.

Participants:

The Trillium Drug Program covers most of the cost of prescription drug products listed in the Ontario Drug Benefit (ODB) Formulary for persons whose insurance does not cover 100% of their prescription drug costs and who are not eligible for drug coverage under the ODB program. Any Ontario resident meeting these requirements may apply for coverage. 83% of Ontarians using Trillium have incomes of less than $30,000 per year.

Prescription Drugs Covered

As long as the drug products are prescribed by an authorized Ontario prescriber, Trillium covers:

- Approximately 3,000 quality-assured prescription drug products;
- Over 300 limited-use drug products;
- Some nutritional products;
- Some diabetic testing products.

Deductible & Co-payment

The Trillium Drug Program has an annual deductible that is based on income and family size. The deductible is applied on a quarterly basis over the Trillium program year (August 1 to July 31 of the following year). Each year starting August 1, recipients must pay for drug costs up to their deductible level before they are eligible for drug coverage.

For example, a family with an annual deductible of $500 will pay $125 for prescriptions purchased at the start of each quarter on August 1, November 1, February 1, and May 1. After the deductible is paid in each quarter, the family will receive benefits for that quarter, and may be asked to pay a co-payment each time they purchase a covered drug product. Any unpaid deductible in a quarter will be added to the next quarter's deductible.

Once the deductible has been met, all eligible people may be asked to pay up to $2 per prescription as a co-payment each time they purchase a covered drug product in Ontario.

The following sample annual deductibles have been taken from a table of deductibles available from the Ministry of Health of Ontario.

Table O-1
Sample Annual Deductibles under Trillium Drug Program

	Single	**Family**		
Net Income	**Person**	**2 persons**	**3 persons**	**4 persons**
$ 6,500 or less	$ 350	$ 250	$ 200	$ 150
$ 15,000	$ 444	$ 344	$ 294	$ 244
$ 25,000	$ 714	$ 614	$ 564	$ 514
$ 35,000	$ 1,164	$ 1,064	$ 1,014	$ 964
$ 50,000	$ 1,839	$ 1,739	$ 1,589	$ 1,639
$ 65,000	$ 2,514	$ 2,414	$ 2,364	$ 2,314
$ 80,000	$ 3,189	$ 3,089	$ 3,039	$ 2,989
$ 100,000	$ 4,089	$ 3,989	$ 3,939	$ 3,889

Families who come into the program part way through the program year have a prorated deductible. New applicants to Trillium can choose the date on which they wish to be enrolled in the program. The deductible will be based on the number of days left in the program year. This pro-ration of the deductible applies only for the first year that a family is enrolled in the program.

Premiums

No premium is charged for the Ontario Trillium Drug Program.

Cost Control Features

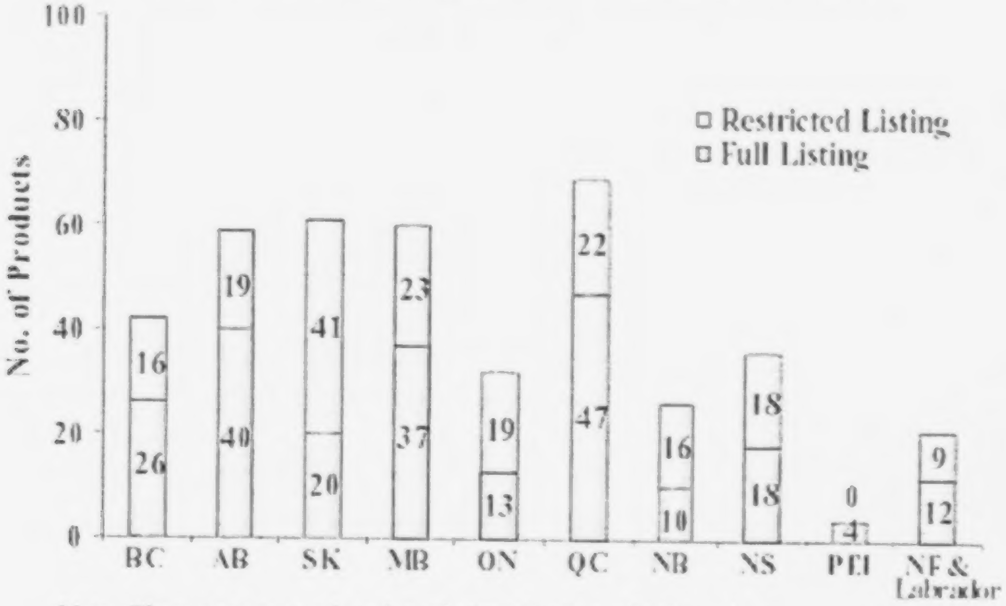
The cost control features are the same as those of the ODB:

- Managing the list of prescription drugs covered and encouraging substitution of expensive drugs with less expensive ones
- Drug utilization review, with the implementation of the Health Network and prescription management through liaison services

The following charts shows that Ontario is one of the most restrictive Provinces for the acceptation of new prescription drugs on their provincial insurance formulary:

Provincial Listings of Innovative Medicines Launched

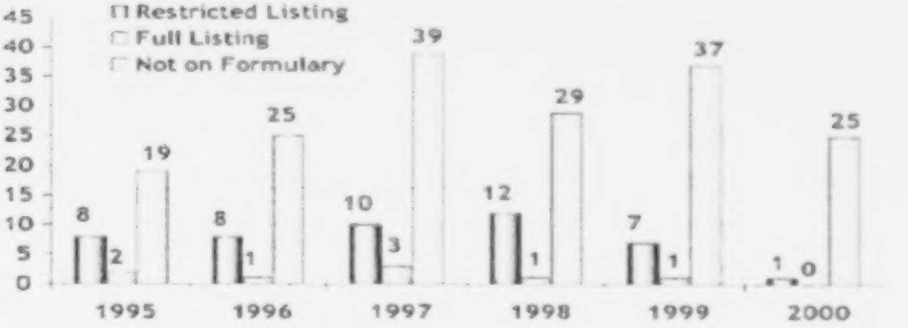
(For Products Launched from September 1, 1999 to August 31, 2001)



Note. These statistics are based on the introduction of 143 products.
Source. IMS Health, Provincial Reimbursement Advisor (November 2001).

Another aspect of cost containment is the delay between the time when a prescription drug is put on the market and the time when it is included in the Provincial formulary. According to Pharmaceutical Research and Manufacturers of America, Ontario is the slowest Province for approving new drugs, as it takes nearly 500 days (compared with 250 days in Nova Scotia, the fastest Province).

Ontario Listing of Innovative Medicines Launched 1995-2000



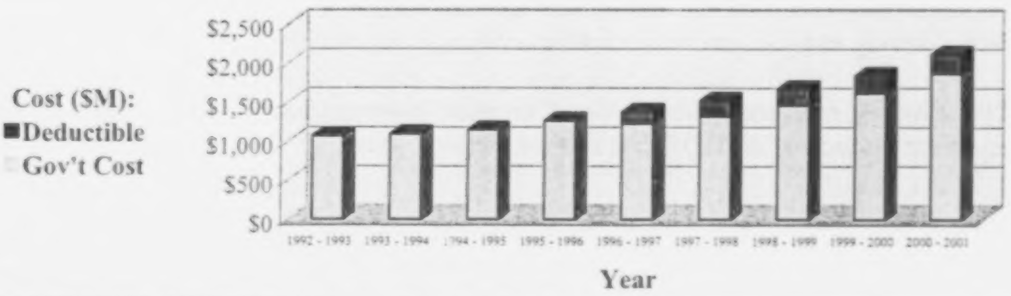
Source: Ontario Drug Formulary March, 2001
Source: Annual Drug Submission Performance Report 1995, 1996, 1997, 1998, 1999, 2000

Financial Results & Cost Analysis

This section presents a few statistics related to pharmaceutical costs in Ontario. They reflect the experience of the Ontario Drug Benefit Program. A significant portion of this information comes from a report tabled in April 2000 by the Federal / Provincial / Territorial Working Group on Drug Prices.

An interesting finding from the Working Group's report is that, despite the implementation of the Trillium Drug Program in 1995, the share of public spending on prescription drugs has fallen from 55% in 1991 to 48.2% in 1998. This situation seems to be related to the introduction of the Trillium Drug Program and its deductible, as shown in the following chart and table:

Government Cost vs Patients Cost
1992/1993 - 2000/2001



Source : 2000/01 Report Card for Ontario Drug Benefit Program

Table O-2
Ontario Drug Benefit Program - Government Cost vs. Patient Cost (in $M)

Year	Government Cost ($ Million)	Deductible ($ Million)	Total Cost ($ Million)	Government Share
1992 - 1993	$1,066	$0	$1,066	100.0 %
1993 - 1994	$1,091	$0	$1,091	100.0 %
1994 - 1995	$1,144	$0	$1,144	100.0 %
1995 - 1996	$1,262	$0	$1,262	100.0 %
1996 - 1997	$1,225	$148	$1,373	89.2 %
1997 - 1998	$1,318	$200	$1,518	86.8 %
1998 - 1999	$1,458	$211	$1,669	87.4 %
1999 - 2000	$1,615	$222	$1,837	87.9 %
2000 - 2001	$1,862	$249	$2,101	88.6 %

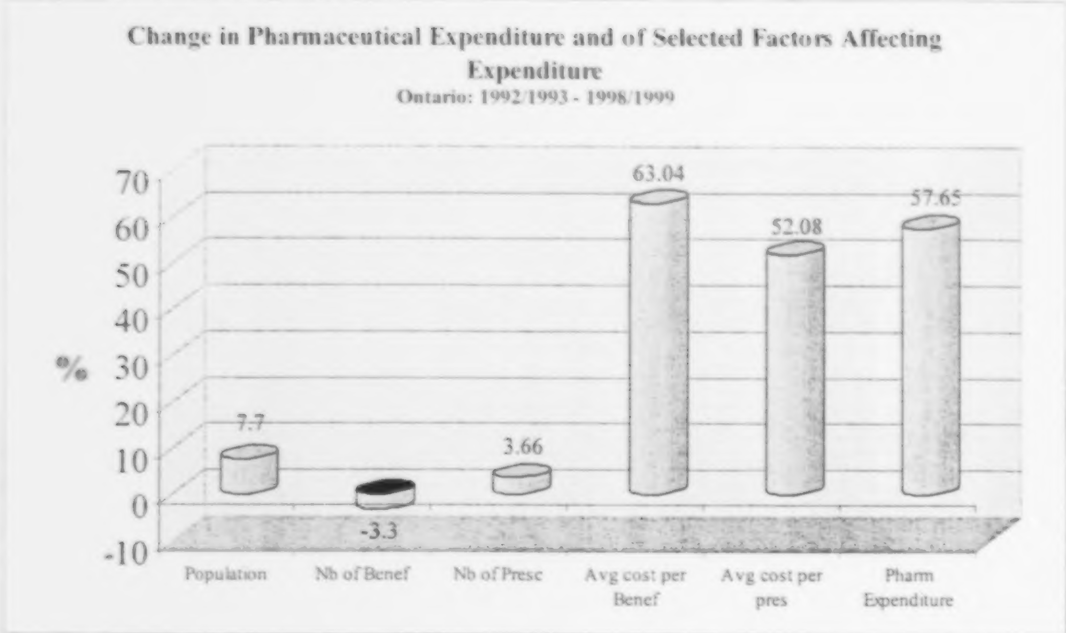
Source : 2000/01 Report Card for Ontario Drug Benefit Program

Although universal and not specifically related to Ontario, here is a summary of factors affecting total drug expenditures:

- Changes in total population
- Changes in the demographics and health status of the population
- Changes in the unit prices of drugs
- Changes in retail and wholesale mark-ups, and dispensing fees
- Changes in the prescribing habits of physicians
- Changes in utilization of drugs on a per patient basis
- Trends towards using drug therapy instead of other treatments
- New diseases to be treated and old diseases to be treated or better treated
- Extended patent protection, barriers to entry and reduction in competition

As can be seen from this list, and in the following results, price changes represent only one factor, among many others, which influence changes in the total cost of drugs.

The following chart shows the impact of the most important items listed above. The numbers represent the total of the ODB cost and the patients' share.



Change in Pharmaceutical Expenditure and of Selected Factors Affecting Expenditure

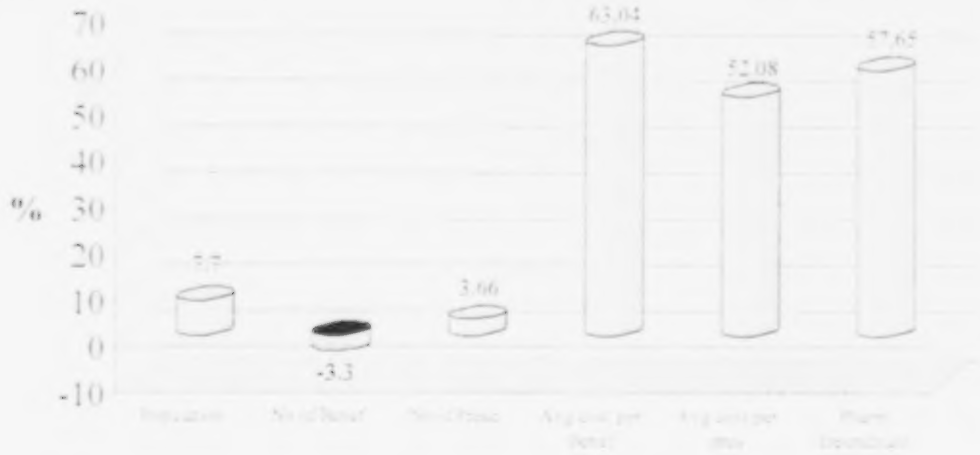
Ontario: 1992/1993 - 1998/1999

Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Ontario

The preceding chart singles out the average cost / prescription as the most important component of the overall increase in the cost of prescription drugs in Ontario. It is important to note that many factors may influence the cost of a prescription. Examples of these are: the manufacturer's unit price, changes in prescribing habits of physicians, changes in the size of prescriptions, the tendency to use drug therapy where none existed before or instead of other treatments, etc.

A surprising finding in the preceding chart is the small increase in the number of prescriptions (3.66%). When combined with the decrease in the number of beneficiaries, the net impact is a net increase of 7.2% over a 6-year period, leading to an average annual increase of 1.2% in the number of prescriptions / beneficiary. This is in stark contrast with the results shown in Table Q-3, where we found an average annual increase of 10.5% over the period 1997-2000. However, the Quebec results are somewhat challenged by the results of an analysis done by CAPSS (now a member of ESI Canada) showing a 5.9% annual increase in the number of prescriptions / beneficiary in the private sector in the Province of Quebec for the same 1997-2000 period. It is very difficult to draw a conclusion from such conflicting results. However, the Quebec and CAPSS results lead us to believe that there may have been some under- or misreporting in the number of prescriptions under the ODB.

Change in Pharmaceutical Expenditure and of Selected Factors Affecting Expenditure
Ontario: 1992/1993 - 1998/1999



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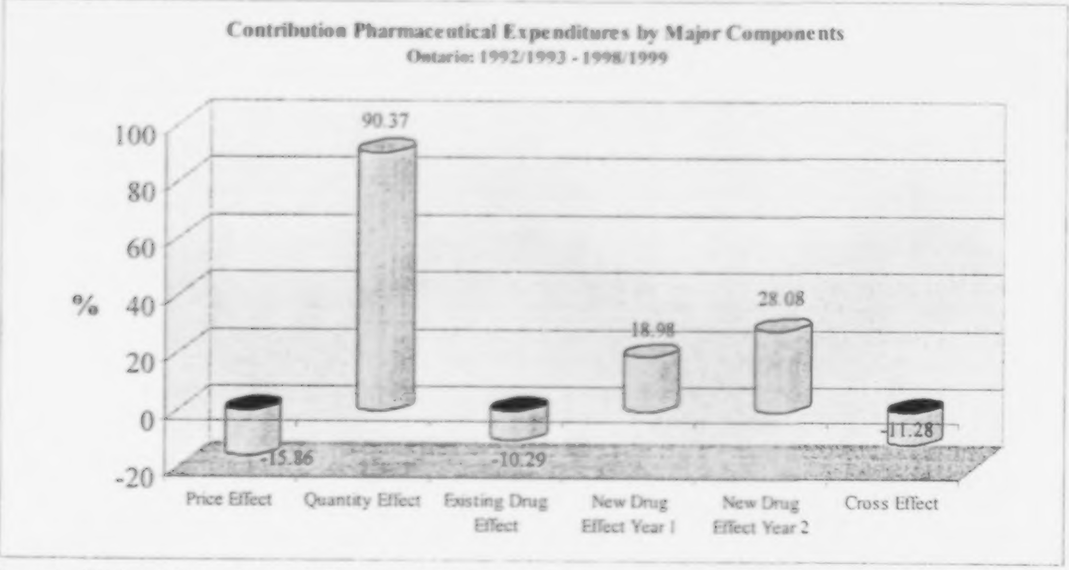
The following chart shows that volume change (or utilization) and the entry of new drugs accounted for the largest increase in expenditures over the period. It also shows that the impact of new drugs was significant in both the year of their introduction (18.98%) and the following year (28.08%).



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Ontario

It is important to keep in mind that the effects reported represent the relative impact each component had on changes in expenditure levels. The negative price effect, of –15.86%, does not mean that prices declined by 15.86%. A marginal decline in a popular drug or the introduction of generic substitution may lead to large negative price effects.

The quantity effect shown in the previous chart is strange since a comparison with the previous chart seems to imply that the cost of prescription drugs would be increasing mainly because patients would be receiving an ever-increasing quantity of medication per prescription. It is possible, however, that because of the co-payment, doctors would be prescribing larger quantities to chronic patients, so that patients pay less as co-payment as they would do otherwise. This would be surprising, though, considering the small size of the co-payment. Another possibility is that the implementation of the Trillium Drug Program, with its large deductible, may have brought heavy users in the system, thus accounting for the increase in volume per prescription.

The following table breaks out annual total expenditures into "existing" and all drugs. "Existing" drugs are those drugs that were on the market in 1992/93 and that had been introduced previously. Newer drugs (drugs that were introduced in 1993/94 or later) are included in "all" drugs. While the total expenditure on "all" drugs has almost doubled over 6 years (from 1992/93 to 1998/99), the portion of the total expenditure spent on drugs that were on the market in 1992/93 has increased in 1993/94 and then decreased slowly and regularly, to the point that, in 1998/99, it was 9.1% below the cost of 1992/93.

Table O-3
Ontario Drug Benefit Program – Impact of New Drugs

Pharmaceutical Expenditures – Existing Drugs vs. All Drugs
Ontario: 1992/1993 – 1998/1999
($Million)

Year	All Drugs			Existing Drugs		
	Total Expenditure	Difference in Expenditure	% Growth Rate	Total Expenditure	Difference in Expenditure	% Growth Rate
1992/1993	685.90			685.90		
1993/1994	779.80	93.90	13.70	765.60	79.70	11.60
1994/1995	839.50	59.70	7.70	724.00	-41.60	-5.40
1995/1996	944.80	105.30	12.50	704.20	-19.80	-2.70
1996/1997	1047.70	102.90	10.90	685.20	-19.00	-2.70
1997/1998	1178.50	130.80	12.50	650.20	-35.00	-5.10
1998/1999	1311.60	133.10	11.30	623.70	-26.50	-4.10

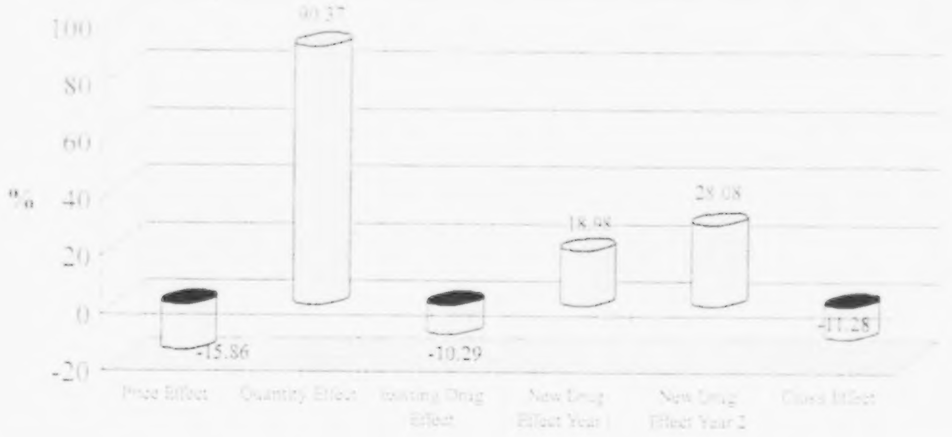
Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Ontario

The average annual reduction in expenditures was 1.6% for existing drugs, while the overall annual increase in the expenditure on all drugs was 11.4%. The preceding table clearly demonstrates the impact of newer drugs as a cost driver in a drug insurance program.

The two following charts break out total pharmaceutical expenditures into expenditures on newer versus existing drugs. The first chart shows that, in 1998/99, drugs that had been on the market for 5 years or less accounted for more than 50% of the cost of all prescription drugs covered by the Ontario Drug Benefit Program.

The following chart shows that volume change (or utilization) and the entry of new drugs accounted for the largest increase in expenditures over the period. It also shows that the impact of new drugs was significant in both the year of their introduction (18.98%) and the following year (28.08%).

Contribution Pharmaceutical Expenditures by Major Components
Ontario: 1992-1993 - 1998-1999



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Ontario

It is important to keep in mind that the effects reported represent the relative impact each component had on changes in expenditure levels. The negative price effect, of -15.86%, does not mean that prices declined by 15.86%. A marginal decline in a popular drug or the introduction of generic substitution may lead to large negative price effects.

The quantity effect shown in the previous chart is strange since a comparison with the previous chart seems to imply that the cost of prescription drugs would be increasing mainly because patients would be receiving an ever-increasing quantity of medication per prescription. It is possible, however, that because of the co-payment, doctors would be prescribing larger quantities to chronic patients, so that patients pay less as co-payment as they would do otherwise. This would be surprising, though, considering the small size of the co-payment. Another possibility is that the implementation of the Trillium Drug Program, with its large deductible, may have brought heavy users in the system, thus accounting for the increase in volume per prescription.

The following table breaks out annual total expenditures into "existing" and all drugs. "Existing" drugs are those drugs that were on the market in 1992/93 and that had been introduced previously. Newer drugs (drugs that were introduced in 1993/94 or later) are included in "all" drugs. While the total expenditure on "all" drugs has almost doubled over 6 years (from 1992/93 to 1998/99), the portion of the total expenditure spent on drugs that were on the market in 1992/93 has increased in 1993/94 and then decreased slowly and regularly, to the point that, in 1998/99, it was 9.1% below the cost of 1992/93.

Table O-3
Ontario Drug Benefit Program – Impact of New Drugs

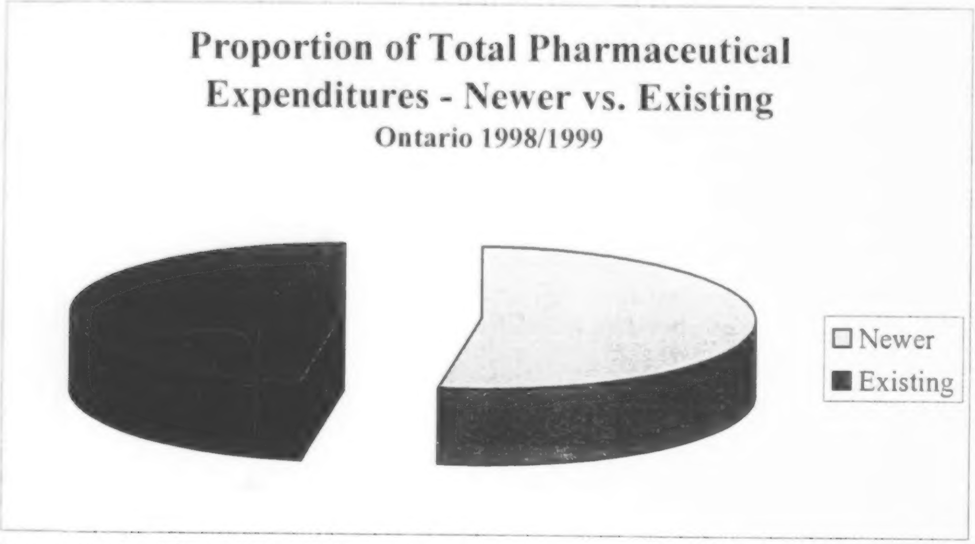
Pharmaceutical Expenditures – Existing Drugs vs. All Drugs
Ontario: 1992/1993 – 1998/1999
($Million)

Year	All Drugs			Existing Drugs		
	Total Expenditure	Difference in Expenditure	% Growth Rate	Total Expenditure	Difference in Expenditure	% Growth Rate
1992/1993	685.90			685.90		
1993/1994	779.80	93.90	13.70	765.60	79.70	11.60
1994/1995	839.50	59.70	7.70	724.00	-41.60	-5.40
1995/1996	944.80	105.30	12.50	704.20	-19.80	-2.70
1996/1997	1047.70	102.90	10.90	685.20	-19.00	-2.70
1997/1998	1178.50	130.80	12.50	650.20	-35.00	-5.10
1998/1999	1311.60	133.10	11.30	623.70	-26.50	-4.10

Source : Federal/Provincial/Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Ontario

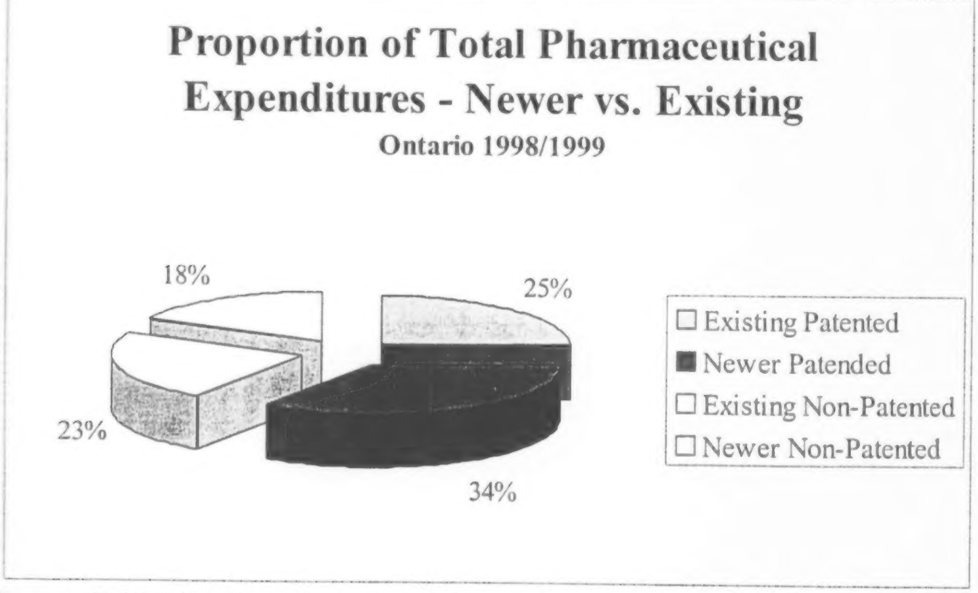
The average annual reduction in expenditures was 1.6% for existing drugs, while the overall annual increase in the expenditure on all drugs was 11.4%. The preceding table clearly demonstrates the impact of newer drugs as a cost driver in a drug insurance program.

The two following charts break out total pharmaceutical expenditures into expenditures on newer versus existing drugs. The first chart shows that, in 1998/99, drugs that had been on the market for 5 years or less accounted for more than 50% of the cost of all prescription drugs covered by the Ontario Drug Benefit Program.



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Ontario

The following chart shows the impact of newly patented drugs :



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Ontario

The Nova Scotia Pharmacare Program

The Province of Nova Scotia has a pharmacare program for seniors and social assistance recipients. This program is a last-resort program, targeted toward people who could not otherwise afford prescription drugs.

Types of Participants:

The following persons are eligible for coverage

- People 65 years of age and older, who do not have private prescription drug insurance; are eligible on a facultative basis
- People 65 years of age and older, who have private prescription drug insurance; are eligible on a facultative basis, once they have incurred out-of-pocket expenses exceeding $415 / year; out-of pocket expenses include any deductibles and coinsurance amounts that seniors pay under their private plans for drugs on the Nova Scotia formulary
- People receiving social assistance, on an automatic basis
- Handicapped persons, on an automatic basis

Prescription Drugs Covered

The Nova Scotia Drug Formulary is the result of a joint development effort by representatives from the Nova Scotia Department of Health and associations of pharmacists, physicians, drug and pharmaceutical manufacturers, seniors and professors. The formulary focuses on disease management and provides guidance to physicians for prescribing the most appropriate and cost-effective drugs. Through a coding system, the formulary allows physicians and pharmacists to quickly review treatment options for a specific medical condition. The formulary is said to include more than 100 treatment summaries written by local physicians.

Deductible & Co-payment

There is no explicit deductible under this plan, although the requirement that seniors incur $415 of out-of-pocket expenses is actually a form of deductible.

Seniors pay a 33% co-payment of the cost of each prescription (a minimum of $3 per prescription) up to another out-of-pocket maximum of $350 per year. A tax credit of up to $300 per year is available to low-income seniors to refund the cost of the premium and co-payments.

Social assistance recipients pay a flat $5.00 co-payment per prescription. There is no annual maximum on the amount that they pay as co-payments.

Premiums

Seniors who receive the Guaranteed income Supplement (GIS) pay no premium. Those who do not receive the GIS must pay a premium in order to be covered under the program. This premium varies with the person's income, according to the following criteria:

- Single seniors whose annual income is lower than $24,000 pay no premium or a reduced premium
- Single seniors whose annual income is $24,000 or more pay a $28 monthly premium ($336 / year)
- Married seniors whose family income is lower than $28,000 pay no premium or a reduced premium
- Married seniors whose family income is $28, 000 or more pay a $28 monthly premium ($336 / year)

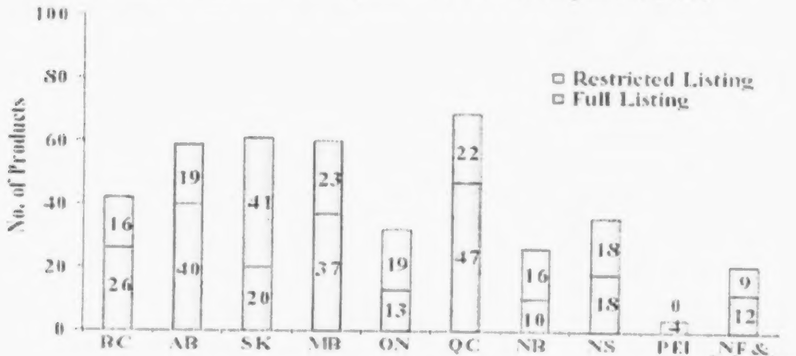
In 1998, the government considered eliminating the premium. After an analysis was made, it was decided to keep the premium at the then current level of $215 / year. This rate remained in force until April 1, 2002, when it was raised to the current level of $336 / year.

Cost Control Features

Drug Formulary

Cost control is achieved chiefly by managing the list of prescription drugs covered and encouraging the use of the most cost efficient drugs with the assistance of the treatment summaries included in the formulary. The following chart shows that Nova Scotia, like New Brunswick and Ontario, is one of the most vigilant Provinces regarding the inclusion of new drugs on the provincial formulary:

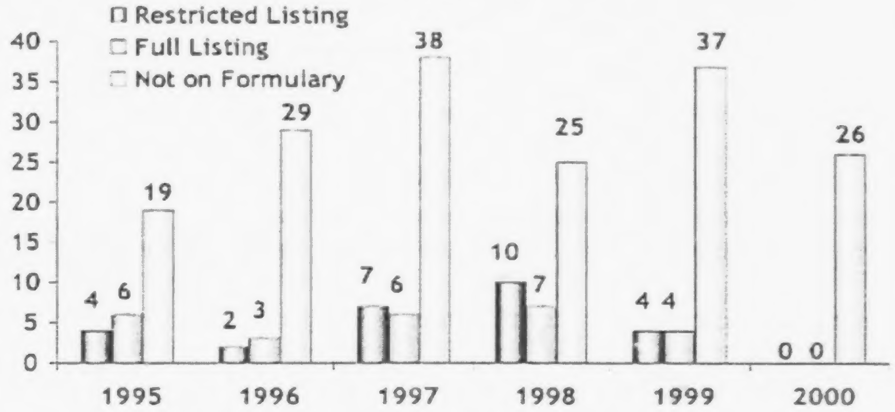
Provincial Listings of Innovative Medicines Launched
(For Products Launched from September 1, 1999 to August 31, 2001)



Note: These statistics are based on the introduction of 143 products.
Source: IMS Health, Provincial Reimbursement Advisor (November 2001).

The following chart shows that even though, according to Pharmaceutical Research and Manufacturers of America, Nova Scotia is the fastest Province for approving new drugs, as it takes only 250 days, it still exercises due care before approving any new drug.

Nova Scotia Listing of Innovative Medicines Launched 1995 - 2000



Source: Nova Scotia Drug Formulary April, 2001
Source: Annual Drug Submission Performance Report 1995, 1996, 1997, 1998, 1999, 2000

Disease Management

By developing and including treatment summaries and guidelines for the utilization of prescription drugs in its formulary, Nova Scotia made a serious attempt at disease management.

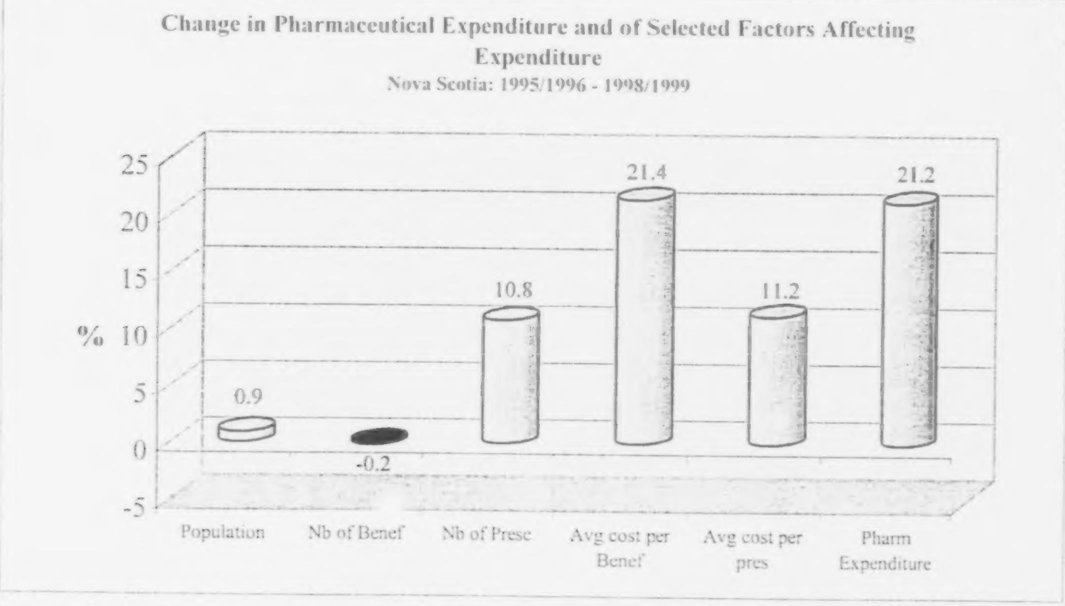
Disease management is different from traditional drug utilization review as its goal is to give the best possible treatment or prescribe the most cost-efficient drug immediately, rather than retrospectively analyze the impact of the treatment or medication provided to assess whether something could have been done more efficiently or not. Disease management seems to be a very promising approach.

Financial Results & Cost Analysis

This section presents a few statistics related to pharmaceutical costs in Nova Scotia. They reflect the experience of the Nova Scotia Pharmacare Program. A significant portion of this information comes from a report tabled in April 2000 by the Federal / Provincial / Territorial Working Group on Drug Prices. Although universal and not specifically related to Nova Scotia, the following factors may have an impact on total drug expenditures:

- Changes in the demographics and health status of the covered population (seniors and social assistance recipients)
- Changes in the unit prices of drugs
- Changes in retail and wholesale mark-ups, and dispensing fees
- Changes in the prescribing habits of physicians
- Changes in utilization of drugs on a per patient basis
- Trends towards using drug therapy instead of other treatments
- New diseases to be treated and old diseases to be treated or better treated
- Extended patent protection, barriers to entry and reduction in competition

As can be seen from this list, and in the following results, price changes represent only one factor, among many others, which influence changes in the total cost of drugs. The following chart shows the impact of the most important items listed above.



Change in Pharmaceutical Expenditure and of Selected Factors Affecting Expenditure
Nova Scotia: 1995/1996 - 1998/1999

Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Nova Scotia

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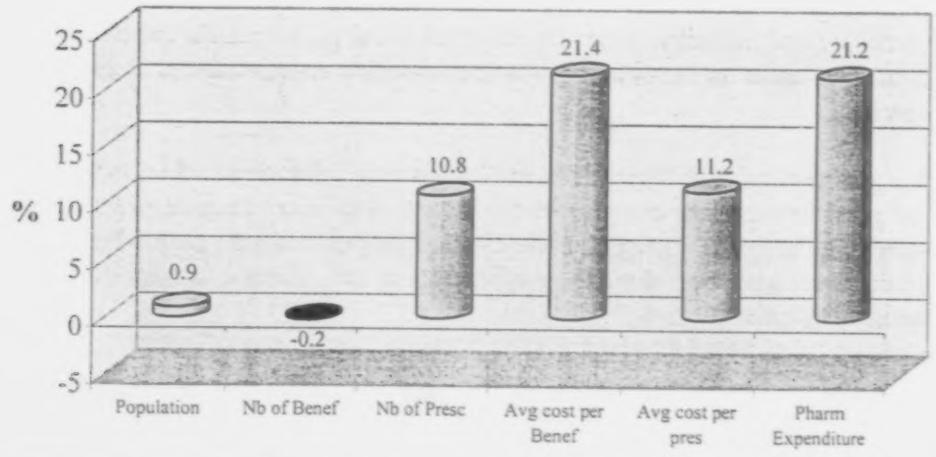
Change in Pharmaceutical Expenditure and of Selected Factors Affecting Expenditure
Nova Scotia: 1995/1996 - 1998/1999



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Nova Scotia

We can compare this information with the corresponding information from Ontario and Saskatchewan, for which we have a similar chart. However, the periods analyzed are different (1995/96 to 1998/99 or 3 years in Nova Scotia versus 1992/93 to 1998/99 or 6 years for Ontario and 1991/92 to 1998/99 or 7 years for Saskatchewan). For the sake of comparing a same period, we compounded the figures for Nova Scotia (e.g. a 20% increase over a 3-year period in Nova Scotia becomes a 44 % increase over 6 years, since 1.20 x 1.20 = 1.44). The most striking differences are:

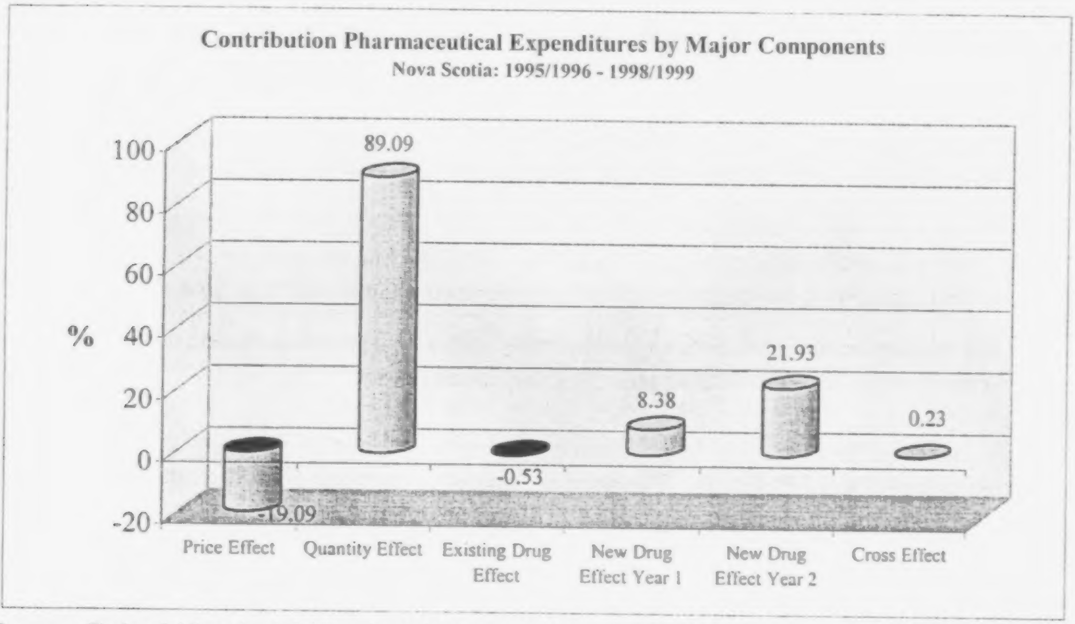
- The average cost / beneficiary increased by only 47% (21.4% compounded twice) in Nova Scotia compared with 63% in Ontario and –8% in Saskatchewan;
- The number of prescriptions / capita increased by 23% (1.108/.998, compounded twice) in Nova Scotia compared with 7% (1.0366/.967) in Ontario and 25% (1.19/.92 compounded with an exponent of 6/7 to give results for 6 years) in Saskatchewan
- The average cost / prescription increased by 24% (11.2% compounded twice) in Nova Scotia versus 52% in Ontario and 14% in Saskatchewan.

Great care must be exercised when making these comparisons as the population covered is not the same in both Provinces. The greater increase in average cost / beneficiary in Ontario may be due to the implementation of the Trillium program during the observation period. As this program is directed toward heavy users of medication, it would not be surprising that the influx of these users in the Ontario system would have driven the average cost /beneficiary. On the other hand, Saskatchewan's plan is more or less a "catastrophic coverage plan" with a deductible of $850 / 6 months and a 35% co-payment for the general population and $100 to $200 / 6 months for GIS recipients.

The most surprising finding in the preceding list is the small increase in the number of prescriptions / beneficiary in Ontario, while Nova Scotia and Saskatchewan show roughly the same increase. As mentioned earlier, and considering data from the private sector, we tend to believe that there may have been some under- or misreporting in the number of prescriptions under the ODB in Ontario. Figures for Nova Scotia and Saskatchewan seem more credible.

The following chart shows that volume change (or utilization) and the entry of new drugs accounted for the largest increases in expenditures over the period. It also shows that the impact of new drugs was significant in both the year of their introduction (8.38%) and the following year (21.93%) but this impact is quite lower than in Ontario, where it was 19% in the first year and 28% in the second year. This difference is probably due to the difference in the time that it takes for a new drug to be approved (250 days in Nova Scotia versus 500 days in Ontario), that results in the 2nd year on the Nova Scotia formulary to be quite equivalent to the 1st year on the Ontario formulary, both years corresponding to the 3rd year since the drug came on the market.

This situation is extremely different from what we see in Saskatchewan where the impact of new drugs is 31% in the 1st year and 70% in the 2nd year.



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Nova Scotia

It is important to keep in mind that the effects reported represent the relative impact each component had on changes in expenditure levels. The negative price effect, of –19.09%, does not mean that prices declined by 19.09%. A marginal decline in a popular drug or the introduction of generic substitution may lead to large negative price effects.

The quantity effect shown in the previous chart is strange since a comparison with the previous chart seems to imply that the cost of prescription drugs would be increasing mainly because patients would be receiving an ever-increasing quantity of medication per prescription. A similar result was seen in Ontario and could tentatively be explained by the implementation of the Trillium Drug Program. However, there is no reason explaining an increase in the quantity of medication / prescription in Nova Scotia.

The following table breaks out annual total expenditures into "existing" and all drugs. "Existing" drugs are those drugs that were on the market in 1995/96 and that had been introduced previously. Newer drugs (drugs that were introduced in 1997/98 or later) are included in "all" drugs. While the total expenditure on "all" drugs has increased by 16% in three years, the expenditure on "existing" drugs has decreased by 3.4% over the same period. This phenomenon is less dramatic than what has been seen in Ontario, partly because the observation period is shorter. (Here we cannot compound the Nova Scotia results to compare them with the Ontario results as the process is non linear, that is on a longer period, the cost of new drugs increases more because these drugs are becoming more numerous, in addition to being more expensive.)

Table NS-1
Nova Scotia Pharmacare – Impact of New Drugs

Pharmaceutical Expenditures – Existing Drugs vs. All Drugs
1995/1996 – 1998/1999
($Million)

Year	All Drugs			Existing Drugs		
	Total Expenditure	Difference in Expenditure	% Growth Rate	Total Expenditure	Difference in Expenditure	% Growth Rate
1995/1996	56.00	-	-	56.00	-	-
1996/1997	58.80	2.80	5.00	56.30	0.30	0.50
1997/1998	61.50	2.70	4.60	52.70	-3.60	-6.40
1998/1999	71.40	9.90	16.10	54.10	1.40	2.70

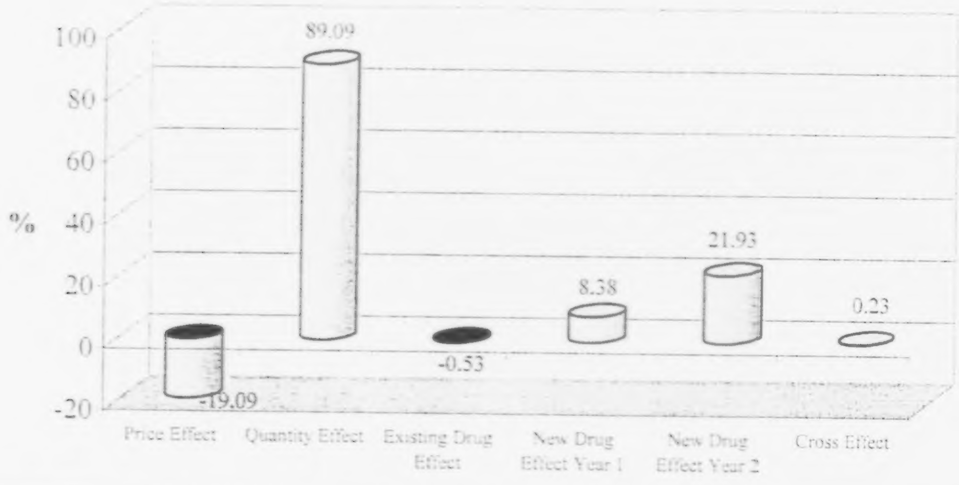
Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans – Nova Scotia

The two following charts break out total pharmaceutical expenditures into expenditures on newer versus existing drugs. The first chart shows that, in 1998/99, drugs that had been on the market for 5 years or less accounted for approximately 25% of the cost of all prescription drugs covered by the Nova Scotia Pharmacare Program.

This situation is extremely different from what we see in Saskatchewan where the impact of new drugs is 31% in the 1st year and 70% in the 2nd year.

Contribution Pharmaceutical Expenditures by Major Components

Nova Scotia: 1995/1996 - 1998/1999



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Nova Scotia

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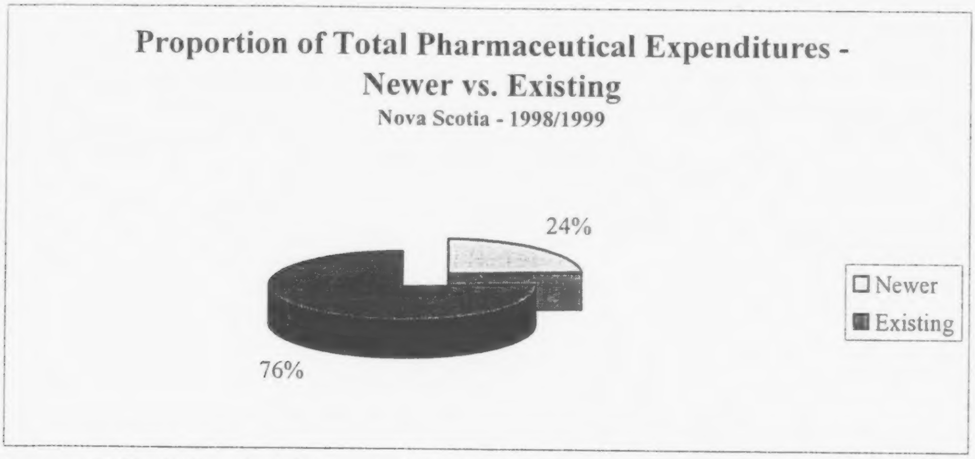
1995/1996 – 1998/1999
($Million)

Year	All Drugs			Existing Drugs		
	Total Expenditure	Difference in Expenditure	% Growth Rate	Total Expenditure	Difference in Expenditure	% Growth Rate
1995/1996	56.00	-	-	56.00	-	-
1996/1997	58.80	2.80	5.00	56.30	0.30	0.50
1997/1998	61.50	2.70	4.60	52.70	-3.60	-6.40
1998/1999	71.40	9.90	16.10	54.10	1.40	2.70

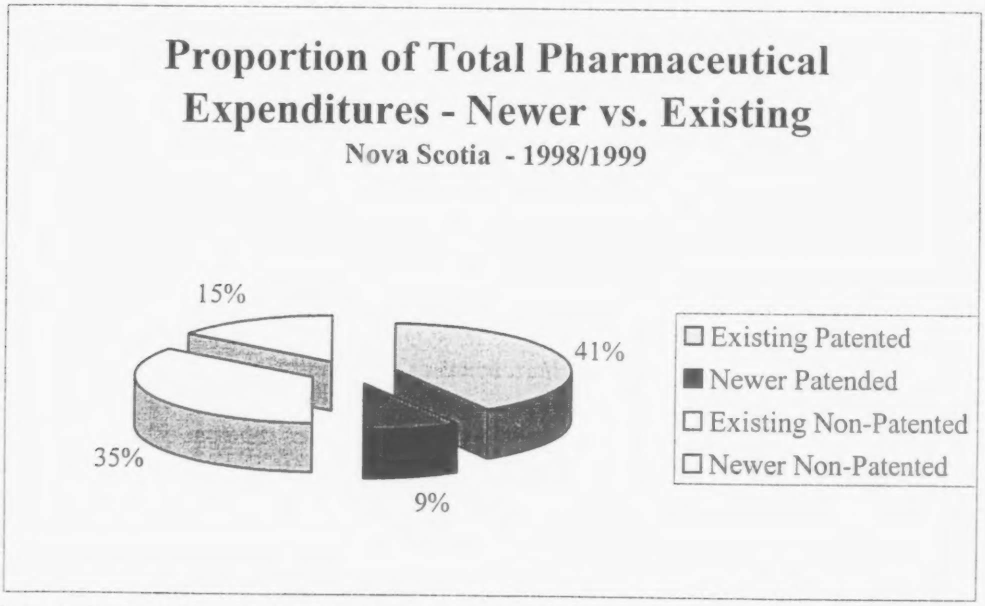
Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans – Nova Scotia

The two following charts break out total pharmaceutical expenditures into expenditures on newer versus existing drugs. The first chart shows that, in 1998/99, drugs that had been on the market for 5 years or less accounted for approximately 25% of the cost of all prescription drugs covered by the Nova Scotia Pharmacare Program.



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans – Nova Scotia

The following chart shows the impact of newly patented drugs :



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans – Nova Scotia

These charts are not readily comparable with Ontario and Saskatchewan as their time frame is too different.

The Saskatchewan Prescription Drug Plan

The Province of Saskatchewan has a universal prescription drug insurance program for all residents. This program is a mix of "catastrophe" insurance for the general population and social assistance for low income people who could not otherwise afford prescription drugs.

Types of Participants:

There are four main categories of participants

- General population
- Non-seniors on the Family Income Plan
- Seniors on the Saskatchewan Income Plan and senior GIS (Guaranteed Income Supplement) recipients residing in nursing homes
- Senior GIS recipients residing in the community

The last 3 categories are eligible to the Special Support Program in order to have a lower co-payment.

Prescription Drugs Covered

A particular feature of the Saskatchewan Drug Formulary is the identification of interchangeable drug groups. Interchangeable products are different brands of the same drug with the same strength and dosage form that are equivalent in therapeutic effectiveness and quality.

Deductible & Co-payment

Deductible

The standard deductible per family is $ 850 semi-annually, making the plan a "catastrophe-type" insurance program whereby people are protected only against "catastrophic" expenses.

For non-seniors on the Family Income Plan, seniors on the Saskatchewan Income Plan and senior GIS (Guaranteed Income Supplement) recipients residing in nursing homes, the deductible is $100 semi-annually.

For senior GIS recipients residing in the community, the deductible is $200 semi-annually.

There is no deductible for persons covered under the Supplementary Health program (mostly Saskatchewan Income Plan recipients living in the community and seniors residing in special hospitals and whose income is at or below the Saskatchewan Income Plan level).

Co-Payment

The standard co-payment is 35% of eligible expenses above the deductible and applies to all persons covered under the program, except persons covered under the Supplementary Health program, for whom the co-payment does not exceed $2.00 / prescription.

Non-seniors on the Family Income Plan, seniors on the Saskatchewan Income Plan and senior GIS recipients may apply to the Special Support Program in order to have a lower co-payment. In that case, the family's co-payment is determined by the amount that the family drug costs exceed 3.4% of the adjusted combined family income (family income minus $3,500 for each dependent under 18 years of age). If annual benefit drug cost exceeds 3.4% of the adjusted income, the family qualifies for a lower co-payment.

Premiums

There is no premium under this program, mostly because of its nature of "catastrophe" insurance / social assistance.

Cost Control Features

Drug Formulary

Cost control is achieved chiefly by managing the list of prescription drugs covered and by encouraging the use of the most cost efficient drugs with compulsory substitution in interchangeable drug groups. The incremental cost is the responsibility of the consumer, except in rare cases when specific exemptions are made for individuals at the physician's request.

Standing offer contracts are used to obtain quantity discounts for high volume, usually interchangeable brands of drugs. These contracts are obtained by a tendering process.

The success of this approach may be related to the fact that Saskatchewan is a small province in terms of population and that pharmaceutical companies may be doing less marketing in this province than in other provinces. A similar approach was once used in New Brunswick and achieved a significant success on the first contracts. However, the savings resulting from this process decreased quickly until the government of New Brunswick agreed to cease this practice in exchange for the presence of a wholesaler in the Province. After two years, the wholesaler left the Province.

On-line Adjudication

Claims are submitted by means of a network and adjudicated on-line by a central processing unit. A central computer checks the claims and determines whether it can be approved for payment. The checks include the following:

- Is the drug covered by the plan?
- Does the beneficiary have health coverage and what type?
- Is the quantity dispensed within appropriate limits?
- Is the number of prescriptions for the beneficiary within limits?
- Is the prescription a duplicate or possible duplicate of another prescription?
- Are the unit costs within limits?
- Is the prescriber authorized?

Drug Utilization Review

The claims processing system is used to perform various audit and assessment checks. The Drug Plan database is also used for internal and external drug use studies.

Prescription Assistance

There is a program for monitoring prescription for a select panel of prescription drugs with the intent to reduce abuse and diversion. This is done using a triplicate prescription. This program is operated by the College of Physicians and Surgeons.

There is also a community drug utilization program pilot project in the Saskatoon Health district as an educational resource to assist physicians in selecting the most appropriate and cost-effective drug therapy for their patients.

Product Assurance Agreements with Drug Manufacturers

The Drug Plan monitors the use of a particular drug to ensure that utilization and health outcomes occur as stated in the manufacturers documentation submitted to the Saskatchewan Formulary Committee. Where that does not occur, an intervention may happen and a financial adjustment may be made against the manufacturer.

Trial Prescription Program

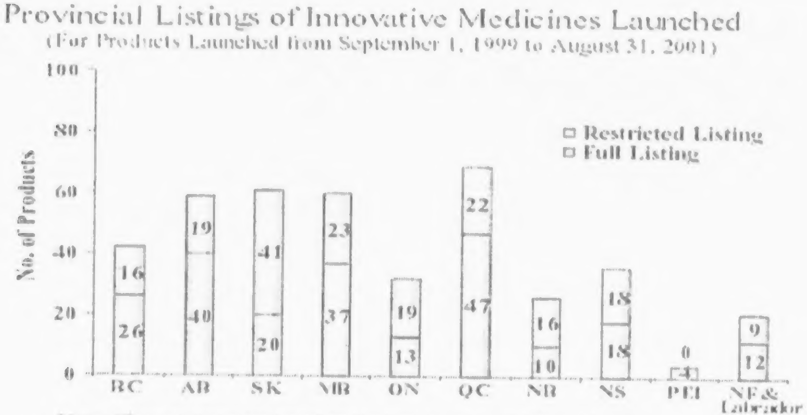
This is a joint project with the Saskatchewan Pharmaceutical Association. The pharmacist is encouraged to dispense a 7- to 10-day supply for the initial prescription of certain drugs, then monitor the effect on the patient and if the outcomes are positive, dispense the full prescription as directed by the physician.

Price Controls

There is a maximum dispensing fee of $7.22 and the following maximum mark-up allowance:

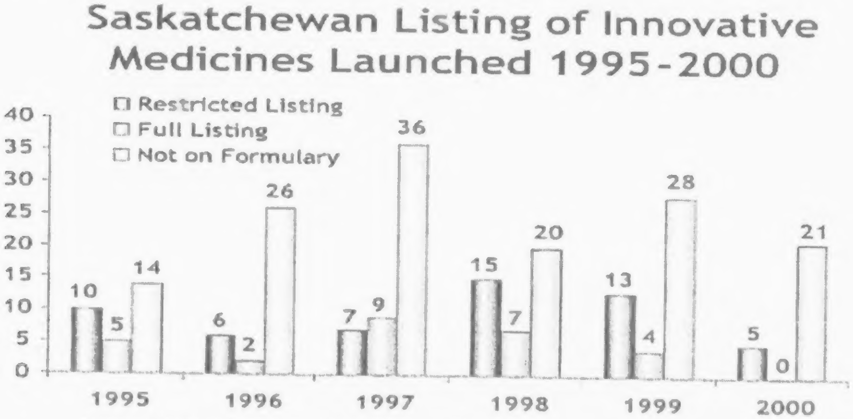
- 30% for drug cost up to $6.30
- 15% for drug cost between $6.31 and $15.80
- 10% for drug cost above $15.80, with an overall $20.00 maximum cap on pharmacy mark-up.

The following chart shows that Saskatchewan is more open to new drugs than Nova Scotia, New Brunswick and Ontario:



Note: These statistics are based on the introduction of 143 products.
Source: IMS Health, Provincial Reimbursement Advisor (November 2001).

The following chart shows that Saskatchewan includes a significant portion (greater than for Ontario and Nova Scotia) of the new drugs on its formulary.



Source: Saskatchewan Drug Formulary, July 2001
Source: Annual Drug Submission Performance Report 1995, 1996, 1997, 1998, 1999

The following table summarizes the information provided in the preceding chart for all Provinces analyzed:

Table S-1
Acceptation of innovative Medicines: 1995 - 2000

Year	Restricted Listing		Full Listing		Not on Formulary		Total
	Nb.	%	Nb.	%	Nb.	%	Nb.
Quebec	25	11.0%	71	31.1%	132	57.9%	228
Ontario	45	19.8%	8	3.5%	174	76.7%	227
Nova Scotia	27	11.9%	26	11.4%	174	76.7%	227
Saskatchewan	56	24.6%	27	11.8%	145	63.6%	228
New Brunswick	48	21.1%	26	11.4%	154	67.5%	228

This table shows that Saskatchewan, New Brunswick and Nova Scotia granted full listing status to approximately the same number of new products, while Ontario was far more restrictive and Quebec far more lenient. On the other hand, Saskatchewan and, to a lesser extent, Ontario and New Brunswick were more willing to accept new drugs on their restricted listing than Nova Scotia. Overall, among the five Provinces, Quebec and Saskatchewan were more favorable to new drugs than the other three Provinces.

Financial Results & Cost Analysis

This section presents a few statistics related to pharmaceutical costs in Saskatchewan. They reflect the experience of the Saskatchewan Drug Program. A significant portion of this information comes from a report tabled in April 2000 by the Federal / Provincial / Territorial Working Group on Drug Prices. Although universal and not specifically related to Saskatchewan, the following factors may have an impact on total drug expenditures:

- Changes in the demographics and health status of the covered population (seniors and social assistance recipients)
- Changes in the unit prices of drugs
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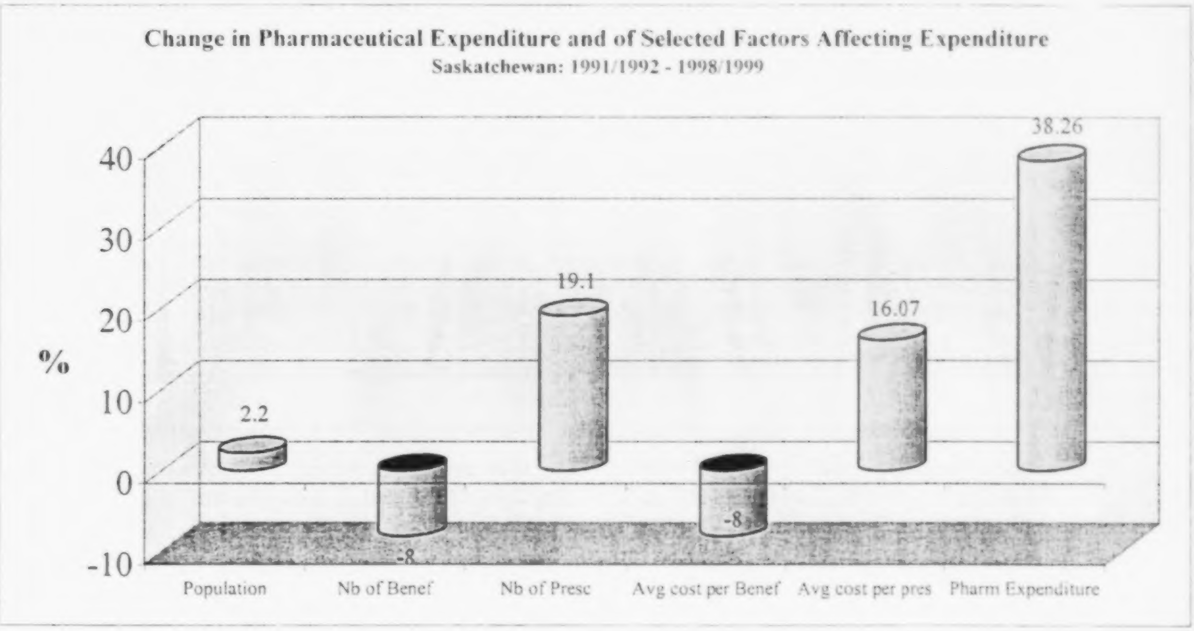

Change in Pharmaceutical Expenditure and of Selected Factors Affecting Expenditure
Saskatchewan: 1991/1992 - 1998/1999

Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Saskatchewan

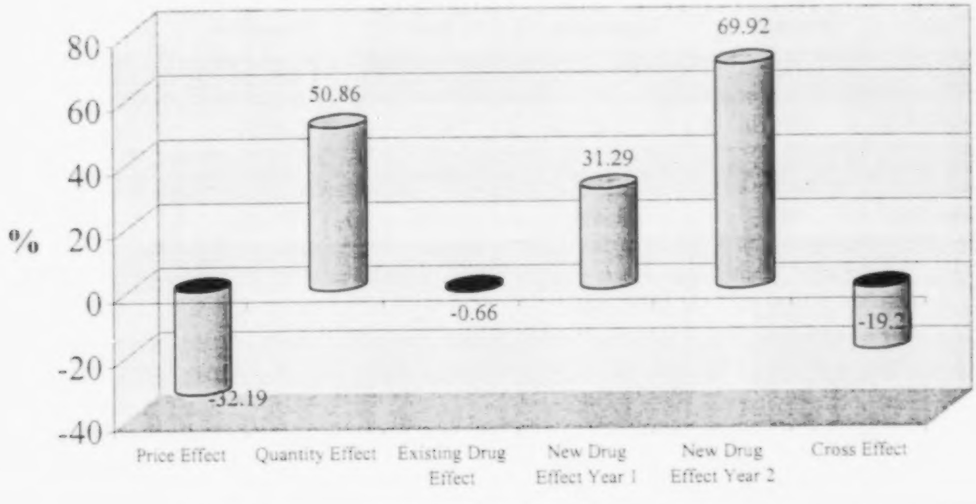
We can compare this information with the corresponding information from Nova Scotia and Ontario, for which we have a similar chart. However, the periods analyzed are different (1995/96 to 1998/99 or 3 years in Nova Scotia versus 1992/93 to 1998/99 or 6 years for Ontario and 1991/92 to 1998/99 or 7 years for Saskatchewan). For the sake of comparing a same period (6 years), we compounded the figures for Saskatchewan (6/7 exponent) and for Nova Scotia (e.g. a 20% increase over a 3-year period in Nova Scotia becomes a 44 % increase over 6 years, since 1.20 x 1.20 = 1.44). The most striking differences are:

- The average cost / beneficiary decreased by 8% compared with an increase of 47% in Nova Scotia and 63% in Ontario;
- The number of prescriptions / capita increased by 25% (1.19/.92 compounded with an exponent of 6/7 to give results for 6 years) compared with 7% (1.0366/.967) in Ontario and 23% (1.108/.998, compounded twice) in Nova Scotia
- The average cost / prescription increased by 14% in Saskatchewan versus 52% in Ontario and 24% (11.2% compounded twice) in Nova Scotia

Great care must be exercised when making these comparisons as the population covered is not the same in both Provinces. The greater increase in average cost / beneficiary in Ontario may be due to the implementation of the Trillium program during the observation period. As this program is directed toward heavy users of medication, it would not be surprising that the influx of these users in the Ontario system would have driven the average cost /beneficiary. On the other hand, Saskatchewan's plan is more or less a "catastrophic coverage plan" with a deductible of $850 / 6 months and a 35% co-payment for the general population and $100 to $200 / 6 months for GIS recipients.

The following chart shows that the entry of new drugs and volume change (or utilization) accounted for the largest increases in expenditures over the period. It also shows that the impact of new drugs was significant in both the year of their introduction (31.29%) and the following year (69.92%) but this impact is higher than anywhere else. This situation may be due to higher rate of acceptance of new drugs compared with Ontario and Nova Scotia.

Contribution Pharmaceutical Expenditures by Major Components
Saskatchewan: 1991/1992 - 1998/1999



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans - Nova Scotia

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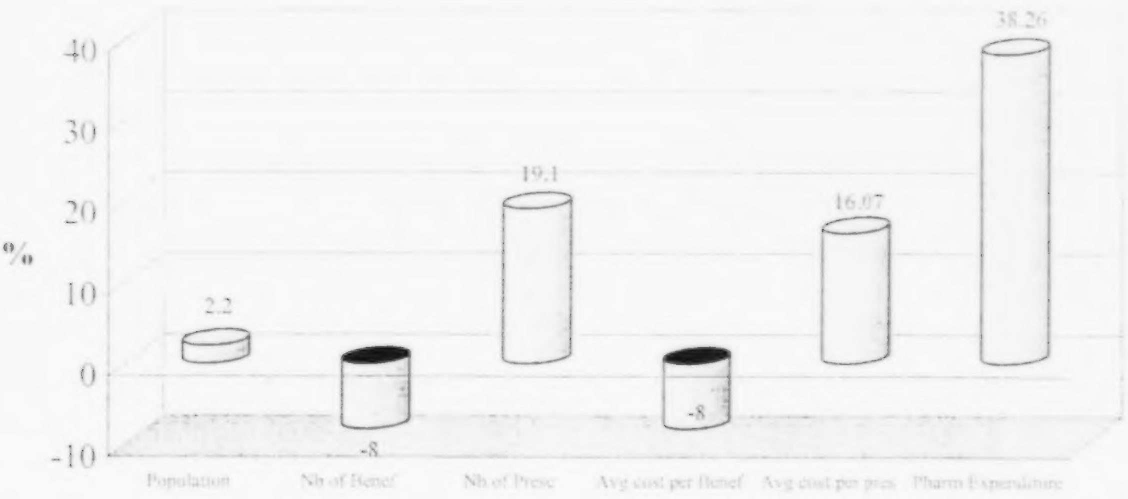

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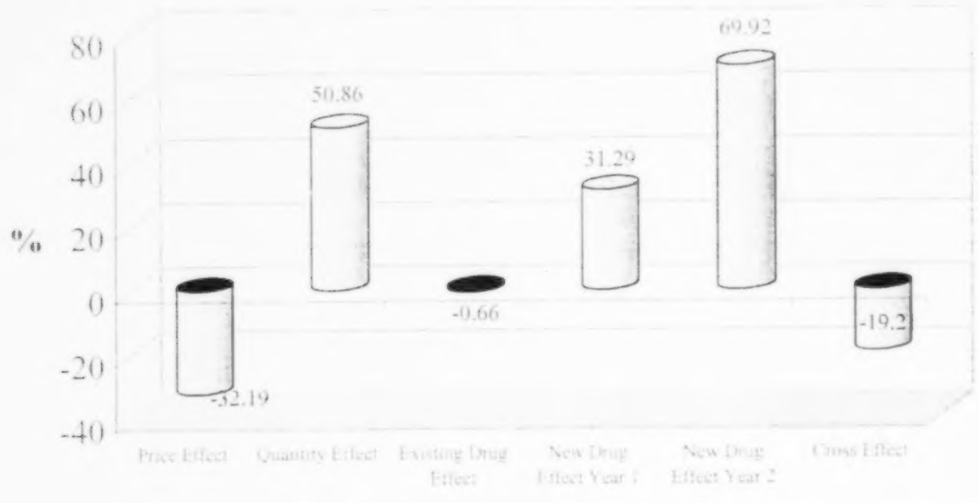

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The following table breaks out annual total expenditures into "existing" and all drugs. "Existing" drugs are those drugs that were on the market in 1991/92 and that had been introduced previously. Newer drugs (drugs that were introduced in 1992/93 or later) are included in "all" drugs. While the total expenditure on "all" drugs has increased by 41% in seven years, the expenditure on "existing" drugs has decreased by 45% over the same period. This compares to a 91% increase on the cost of all drugs and a 9% decrease on existing drugs in Ontario over a 6-year period.

Table S-2
Saskatchewan Drug program – Impact of New Drugs

Pharmaceutical Expenditures – Existing Drugs vs. All Drugs
1991/1992 – 1998/1999
($Million)

Year	All Drugs			Existing Drugs		
	Total Expenditure	Difference in Expenditure	% Growth Rate	Total Expenditure	Difference in Expenditure	% Growth Rate
1991/1992	90.07	-	-	90.07	-	-
1992/1993	97.30	7.23	8.03	96.36	6.29	6.99
1993/1994	90.80	-6.50	-6.68	82.10	-14.26	-14.80
1994/1995	96.23	5.43	5.98	72.31	-9.79	-11.92
1995/1996	104.22	7.99	8.31	66.37	-5.94	-8.21
1996/1997	107.56	3.34	3.20	57.26	-9.11	-13.74
1997/1998	114.22	6.66	6.19	52.30	-4.56	-8.66
1998/1999	127.18	12.96	11.35	49.15	-3.15	-6.02

Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans – Saskatchewan

The two following charts break out total pharmaceutical expenditures into expenditures on newer versus existing drugs. The first chart shows that, in 1998/99, drugs that had been on the market for 5 years or less accounted for more than 60% of the cost of all prescription drugs covered by the Saskatchewan Drug Program.

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1992/1993	97.30	7.23	8.03	96.36	6.29	6.99
1993/1994	**90.80**	**-6.50**	**-6.68**	**82.10**	**-14.26**	**-14.80**
1994/1995	96.23	5.43	5.98	72.31	-9.79	-11.92
1995/1996	**104.22**	**7.99**	**8.31**	**66.37**	**-5.94**	**-8.21**
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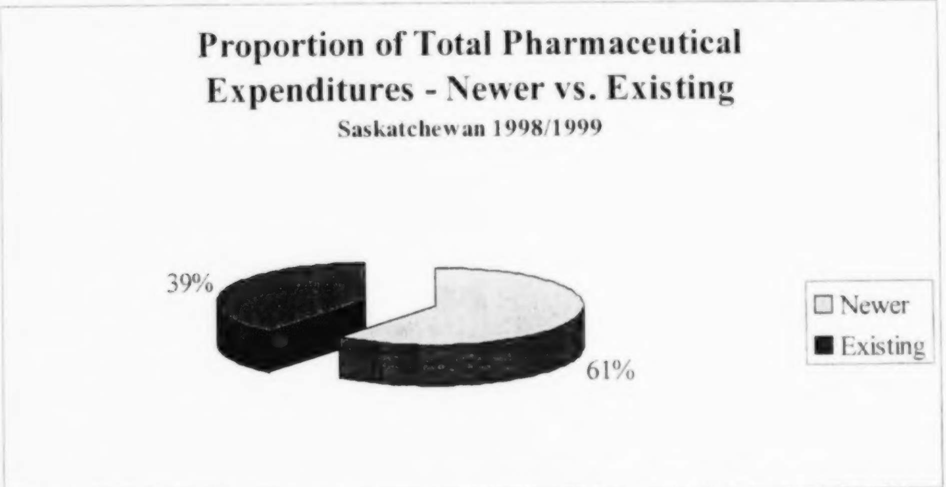
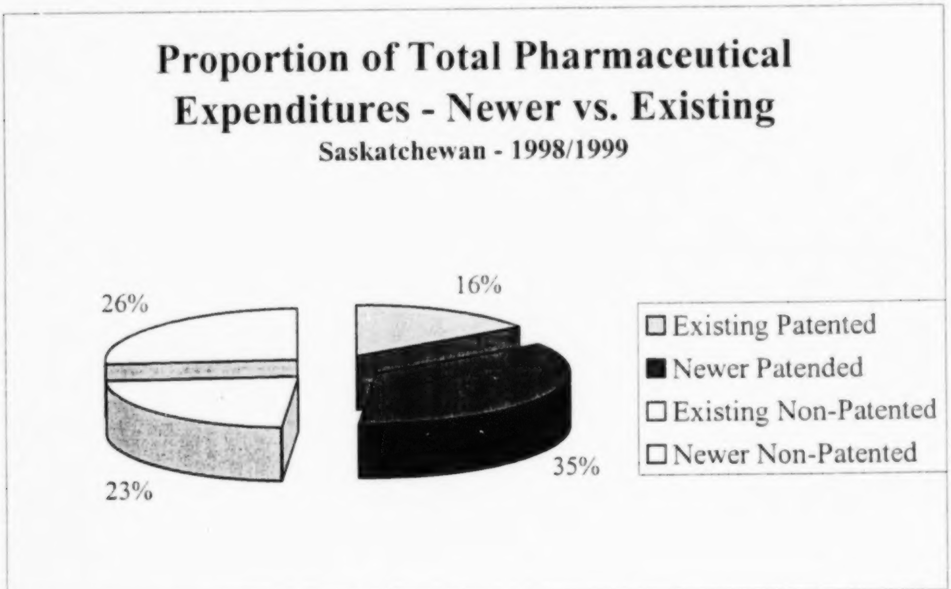


Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans – Saskatchewan

The following chart shows the impact of newly patented drugs :



Source : Federal / Provincial / Territorial Working Group on Drug Prices: Cost Driver Analysis of Provincial Drug Plans – Saskatchewan

Results from Saskatchewan must be interpreted with caution since deductibles have not been increased since before 1995/96. A constant deductible can significantly increase the impact of inflation and increasing utilization, as the following example shows. Let us assume that a person (who is subject to a $850 / year deductible) buys $600 of prescription drugs in 1995 and that the cost of his medication increases at a rate of 15% /year. This plan will pay the following amounts for this person:

	Purchase		**Deductible**		**Charge to the Plan**	
Year	**Amount**	**Variation**	**Amount**	**Variation**	**Amount**	**Variation**
1995	$ 500		$ 850	0.0 %	$ 0	0.0 %
1996	$ 575	15.0 %	$ 850	0.0 %	$ 0	0.0 %
1997	$ 661	15.0 %	$ 850	0.0 %	$ 0	0.0 %
1998	$ 760	15.0 %	$ 850	0.0 %	$ 0	0.0 %
1999	$ 875	15.0 %	$ 850	0.0 %	$ 16	infinite
2000	$ 1,006	15.0 %	$ 850	0.0 %	$ 101	631 %
2001	$ 1,156	15.0 %	$ 850	0.0 %	$ 199	97 %
2002	$ 1, 330	15.0 %	$ 850	0.0 %	$ 312	57 %
Average		15.0 %		0.0 %		infinite

As shown in this table, the non-indexation of the deductible can create strange results and/or seriously distort results. Hence, a province which is doing a very good job at controlling its cost (and consequently does not see the need for increasing its deductible) may still face sharp cost increases in its public prescription drug insurance program.

The New Brunswick Prescription Drug Program

The New Brunswick Prescription drug Program provides prescription drug benefits to certain residents of New Brunswick. The program consists of several individual drug plans, each designed to meet the needs of beneficiary groups. It is a last resort program, for persons who are not covered by any other contract or plan of insurance. The seniors' plan is insured with Blue Cross of Atlantic Canada.

Types of Participants:

There are two main categories of participants:

- Seniors who receive Old Age Security / Guaranteed Income Supplement (GIS) or have a low income (lower than $17,198 for singles, lower than $26,955 for a couple where both spouses are over 65 years of age or $ 32,390 if one of the spouses is below age 65) -covered under Plan A – approximately 62,000 persons
- Social Assistance recipients (non seniors holding a health card issued by the Department of Family & Community Services) – Covered under Plan F – approximately 55,000 persons

There are four secondary categories of participants (covering approximately 5,000 persons in total)

- Social Assistance recipients living in licensed residential facilities – covered under Plan E
- Persons suffering from specific conditions:
    - Cystic fibrosis – covered under Plan B
    - Multiple sclerosis – covered under Plan H
    - Organ transplant recipients – covered under Plan R
    - Human growth hormone deficiency – covered under Plan T
    - HIV – covered under Plan U
- Nursing home residents – covered under Plan V
- Children in Care of the Minister of Family and Community Services – covered under Plan G

Prescription Drugs Covered

More than 3,200 products (including various dosages of a same medication) are covered in the New Brunswick Prescription Drug Formulary. By comparison, the Ontario list includes approximately 3,300 products.

Deductible & Co-payment

Deductible

There is no deductible under the New Brunswick Prescription Drug Program.

Co-Payment

The co-payment varies according to the plan.

For seniors receiving the GIS, the co-payment is $9.05 / prescription up to an annual co-pay ceiling of $250. For other participating seniors, the co-payment is $15.00 / prescription with no annual co-pay ceiling.

For Social Assistance recipients, the co-pay is $4.00 / prescription for adults and $2.00 / prescription for children, up to an annual co-pay ceiling of $250 per family unit.

Premiums

There is no premium under this program for seniors who receive the GIS and Social Assistance recipients. Other seniors who exceed the income eligibility threshold may subscribe to the Blue Cross Seniors' Prescription Drug Program and pay an $89 monthly premium, corresponding to an annual premium of $1,068.

Cost Control Features

Drug Formulary

Cost control is achieved chiefly by managing the list of prescription drugs covered and by encouraging the use of the most cost efficient drugs with mandatory generic substitution and listing of generic products as soon as possible.

On-line Adjudication

Claims are submitted by means of a network and adjudicated on-line by a central processing unit. A central computer checks the claims and determines whether it can be approved for payment. The checks include the following:

- Is the drug covered by the plan?
- Does the beneficiary have health coverage and what type?
- Is the quantity dispensed within appropriate limits?
- Is the number of prescriptions for the beneficiary within limits?
- Is the prescription a duplicate or possible duplicate of another prescription?
- Are the unit costs within limits?
- Is the prescriber authorized?

Volume Control

Another important cost control approach used in New Brunswick is a set of measures aimed at controlling the volume of prescription drugs consumed. These measures include de-listing over-the-counter medications and implementing quantity ceilings on certain drug products. Prescribing guidelines have been distributed to help physicians control their volume of prescription.

Eligibility Control

Eligibility is controlled using a point-of-service eligibility file at the pharmacy level.

Price Controls

Remuneration of pharmacists for services rendered to program beneficiaries has been decreased. In particular, the pharmacist's mark-up was eliminated in April, 1996. Also, a maximum allowable price is set for interchangeable products and some single source products.

Standing offer contracts were used prior to 1996 and achieved interesting savings initially. However, savings resulting from this process decreased quickly and the government agreed to cease this practice in exchange for the presence of a wholesaler in the Province. After two years, the wholesaler left the Province.

Product Reviews

The cost of specific product reviews is charged back to the pharmaceutical industry. Information is obtained from Health Canada regarding product defects and adverse reactions.

Studies

A number of studies have been done to identify potential areas of overspending and to investigate possible improvements to the plan. Such studies include studies on the number of days for which prescription drugs are supplied, the use of benzodiazepine, physician prescribing, electronic creation of patient profile, etc.

Disease Management

Ad hoc advisory committees are used to work on strategies to improve the quality and cost-effectiveness of managing certain illnesses or disorder such as upper gastro-intestinal disorders. Therapeutic reviews of certain prescription drugs are performed. Information bulletins on usage patterns and drug interaction of the products reviewed are prepared and circulated to physicians and pharmacists.

Other disease management projects, focusing not only on drug therapy but also on physician services, medical procedures and hospitalizations have taken place. One objective of such programs is to better understand the role that drug therapy plays in disease management.

Education & Profiling

New Brunswick has a three-pronged education approach, addressing physicians, pharmacists and beneficiaries.

Bulletins and prescribing guidelines are distributed to physicians. Physicians also receive their personal prescribing profile along with their patients' utilization profiles. Pharmacists receive bulletins and beneficiary utilization profiles. Beneficiaries receive fact sheets. Senior groups have been organized to deliver educational initiatives.

Prescription Assistance

Physician prescribing profiles have been sent to family physicians. These profiles have provided data on individual prescribing practices for antidepressants, cardiovascular and gastro-intestinal drug products.

Drug Utilization Review

Utilization review is performed to identify situations where drugs are inappropriately taken and situations where the cost efficiency of drug therapy can be improved.

Audit

Audit is done at various levels: beneficiary, pharmacy and physician. Eligibility files are subject to audit.

"Doctor and Pharmacy Shopping"

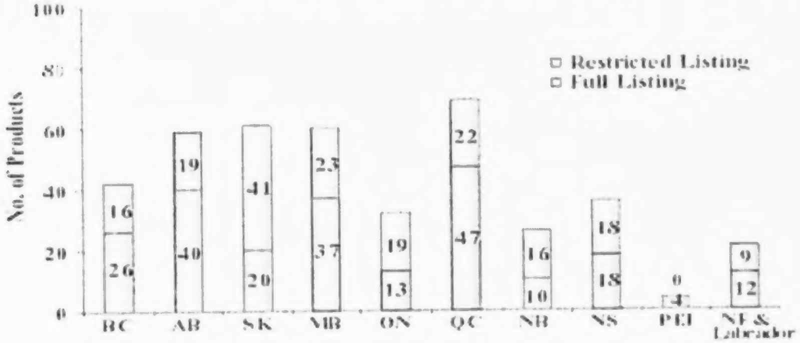
Follow-up assessments of beneficiaries identified as potential doctor or pharmacy shoppers are done in order to prevent and control deliberate prescription drug abuse.

Inclusion of New Products on the Drug Formulary

To be included on the prescription drug formulary, a product must be approved by an expert advisory committee. The following chart shows that New Brunswick is one of the most restrictive Provinces regarding the inclusion of new drugs on the provincial formulary, being second only to Prince Edward Island regarding the drugs that are granted full listing (hence becoming available without restriction) on the formulary.

Provincial Listings of Innovative Medicines Launched

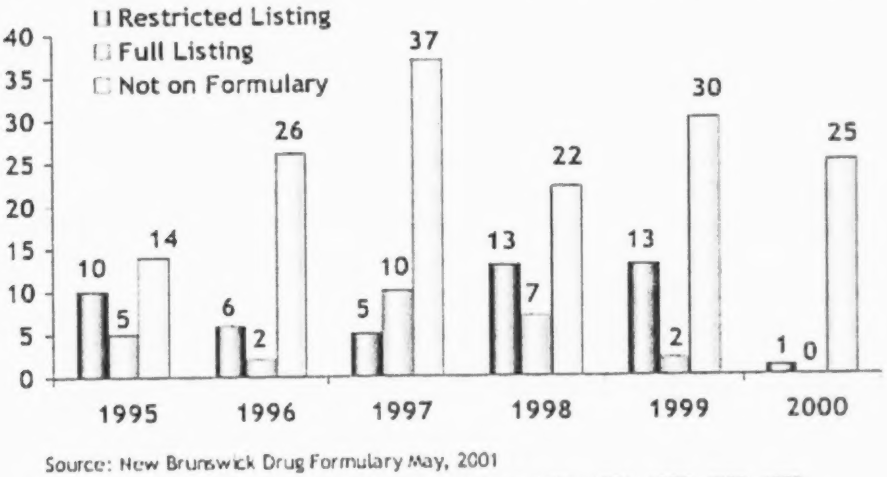
(For Products Launched from September 1, 1999 to August 31, 2001)



Note: These statistics are based on the introduction of 143 products
Source: IMS Health, Provincial Reimbursement Advisor (November 2001)

The following chart shows that New Brunswick includes a significant portion of the new drugs on its formulary.

New Brunswick Listing of Innovative Medicines Launched 1995 - 2000



Source: New Brunswick Drug Formulary May, 2001
Source: Annual Drug Submission Performance Report 1995, 1996, 1997, 1998, 1999

The following table summarizes the information provided in the preceding chart for all Provinces analyzed; it shows that New Brunswick includes a greater portion of the new drugs (than Ontario and Nova Scotia) on its formulary.

Table NB-1
Acceptation of innovative Medicines: 1995 - 2000

Year	Restricted Listing		Full Listing		Not on Formulary		Total
	Nb.	%	Nb.	%	Nb.	%	Nb.
Quebec	25	11.0%	71	31.1%	132	57.9%	228
Ontario	45	19.8%	8	3.5%	174	76.7%	227
Nova Scotia	27	11.9%	26	11.4%	174	76.7%	227
Saskatchewan	56	24.6%	27	11.8%	145	63.6%	228
New Brunswick	48	21.1%	26	11.4%	154	67.5%	228

This table shows that Saskatchewan, New Brunswick and Nova Scotia granted full listing status to approximately the same number of new products, while Ontario was far more restrictive and Quebec far more lenient. On the other hand, New Brunswick, Ontario and Saskatchewan were more willing to accept new drugs on their restricted listing than Nova Scotia. Overall, among the five Provinces, Quebec and Saskatchewan were more favorable to new drugs than the other three Provinces.

Financial Results & Cost Analysis

This section presents a few statistics related to pharmaceutical costs in New Brunswick. They reflect the experience of the New Brunswick Prescription Drug Program. A significant portion of this information comes from the annual report published by the NBPDP. Although universal and not specifically related to New Brunswick, the following factors may have an impact on total drug expenditures:

- Changes in the demographics and health status of the covered population (seniors and social assistance recipients)
- Changes in the unit prices of drugs
- Changes in retail and wholesale mark-ups, and dispensing fees
- Changes in the prescribing habits of physicians
- Changes in utilization of drugs on a per patient basis
- Trends towards using drug therapy instead of other treatments
- New diseases to be treated and old diseases to be treated or better treated
- Extended patent protection, barriers to entry and reduction in competition

The following table shows the evolution of the cost of the NBPDP over the last 5 years :

Table NB-2
New Brunswick Prescription Drug Program - Expenses (in $M)

Year	Prescription Cost ($ Million)	Administration ($ Million)	Total Cost ($ Million)	Variation
1996 - 1997	n.a.	n.a.	$ 52.4	
1997 - 1998	$ 53.8	$ 2.2	$ 56.0	6.8 %
1998 - 1999	$ 60.3	$ 2.5	$ 62.8	12.1 %
1999 - 2000	$ 66.7	$ 2.8	$ 69.5	10.8 %
2000 - 2001	$ 77.1	$ 2.8	$ 79.9	14.9 %

Source : New Brunswick Department of Health & Wellness- Prescription Drug Program Annual Reports, 1997-98 to 2000-01

The 14.9% increase between 1999-2000 and 2000-2001 results from the combination of the following factors:

- A 3.3% decrease in the number of active Prescription Drug Program beneficiaries
- A 19.4% increase in the average annual cost / beneficiary, resulting from :
  - ➢ An 8% increase in the number of prescriptions / year per beneficiary (19.9 to 21.5)
  - ➢ A 10.6% increase in the average cost / prescription (from $31.55 to $34.89)

The following table compares costs between New Brunswick and Quebec for the two main categories of beneficiaries from NB's point of view : seniors and social assistance recipients.

Table NB-3
Cost Comparison (New Brunswick vs. Quebec) – 2000/2001 – Total Cost

Year	Seniors		Social Assistance Recipients	
	New Brunswick	Quebec	New Brunswick	Quebec
- Percentage of claimants	97%	82%	88%	67%
- Avg. # scripts / claimant	25.8	46.7	13.9	28.3
- Average cost / claimant	$ 966.48	$ 1,278.67	$ 526.69	$ 880.70
- Average cost / beneficiary	$ 935.65	$1,147.83	$ 464.01	$ 593.96
- Avg. cost-sharing/beneficiary (premium, deductible, co-pay)	$ 492.89	$ 440.05	$ 38.21	$ 26.10
- Avg. gov't cost / beneficiary	$ 454.67	$ 707.77	$ 425.80	$ 567.86
- Average cost / prescription	$ 38.39	$ 27.38	$ 37.85	$ 30.39

Sources : Appendix B, Tables A & B

Extreme care must be used when comparing data from two different provinces, as in the preceding table. There may be slight differences in definitions or in the method used for counting persons who are eligible for benefits. The difference in the percentage of claimants is a good illustration of this type of situation.

In private group insurance programs, approximately 65% of eligible persons submit a claim for prescription drugs. This percentage is similar to the percentage of Quebec social assistance recipients who claimed drugs in 2000. However, considering that the social assistance population includes persons who are not able to work for health-related reasons, one would expect the claimant percentage to be higher in the social assistance population than in the privately insured population. On the other hand, persons insured in private plans include disabled workers and disabled dependents of workers, who presumably should use more prescription drugs. As a result, it is rather difficult to quantify the difference in consumption that should be expected between both groups. Now, turning to results from New Brunswick, we find an 88% ratio between claimants and beneficiaries. The difference may be due to the method used to count persons eligible for prescription drugs or it may be due to a difference in criteria between both provinces for admitting people to social assistance.

The difference between the proportion of seniors who claim prescription drugs is interesting. We would expect a higher percentage in New Brunswick because the program is voluntary for those who do not receive the Guaranteed Income Supplement (GIS) and who do not qualify under the income test. The consequence of voluntary participation is a higher proportion of claimants because it can be assumed that the persons who decide to participate and pay a hefty premium ($77 / month or $924 / year) do so because they expect to claim benefits and recover their premium in whole or in part. The fact that the ratio of claimants among certain categories of seniors in New Brunswick (shown in Table A of Appendix B) is 100% or even 101% may indicate that the exposure (the number of persons eligible to claim benefits) is underestimated or it may simply indicate that everyone among these categories submits claims. In this latter situation a claimant percentage of 101% is possible if, during a 12-month period, a person who reaches age 65 and submits a claim is counted as one claimant but only as half a participant. The same is true for someone who has a claim during the period but dies before the end of that period.

The number of prescriptions / claimant is surprisingly different. Among the possible explanations for this difference, there are two more plausible reasons. The first possibility is that when a doctor prescribes more than one item, it may be treated as one single prescription in New Brunswick and as several prescriptions in Quebec. Another possibility is that, because the co-payment is a flat dollar amount per prescription in New Brunswick, doctors may prescribe more units per prescription for recurrent patients than in Quebec. By doing so, doctors would alleviate the impact of the co-payment on their patients.

The most reliable data in the preceding table is the average cost per claimant. Here the exposure can be considered accurate because these persons, by claiming benefits, actually did something to be known and counted. The average cost / beneficiary may be overestimated in New Brunswick as the number of beneficiaries is very close to the number of claimants.

The conclusion to draw from this table is that the cost per claimant is significantly lower in New Brunswick than in Quebec (24% lower for seniors and 40% lower for social assistance recipients). Several reasons may explain this difference, even though none of these reasons can be readily quantified.

The Quebec government is more favorable to the inclusion of new, expensive drugs on its formulary than the Province of New Brunswick. It might be related to the fact that a significant portion of the Canadian pharmaceutical industry is located in Quebec and is creating jobs in Quebec. The higher number of prescriptions per claimant in Quebec means more dispensing fees being paid in that province than in New Brunswick, resulting in a higher cost / claimant. Quebec does not seem to apply as stringent cost containment policies as New Brunswick.

Section 4
Areas of Concern Regarding Prescription Drug Policy

Over the recent years, a certain number of problems have been raised and issues have been identified in various studies done on the subject of prescription drugs and their coverage under an insurance scheme. We have tried to condense the thoughts raised, in order to get a better point of view on the situation and what can be done to improve it. In the following pages, we have tried to identify the major problems that have been raised, to relate them to possible approaches that have been suggested and to raise the important issues to consider when addressing these problems. Some approaches and issues are related to more than one problem.

Problem # 1: Health Care Has Evolved Differently than Medicare

Description of the Problem

Although Medicare has not changed significantly since the time of its implementation, more than 30 years ago, health care has evolved dramatically:

- New technologies have emerged but the cost of these technologies has increased faster than governments' revenues;
- Expensive diagnostic procedures such as MRI have emerged and are increasingly used in the private sector. Because of their cost and the rationing of public health care these procedures are increasingly provided outside Medicare;
- Hospital stays are now shorter, as a result of the shift toward ambulatory care and home care;
- Medical conditions that were previously treated with surgery are now treated with medication; in some cases medication actually replaces surgery while in other cases it merely delays it;
- New illnesses, such as AIDS, have emerged and require expensive medication;
- Chronic illnesses, such as Cancer and Alzheimer's disease have been the focus of pharmaceutical research leading to new, expensive drugs that will be taken for a longer period of time as the life expectancy of the patients continues to increase;
- As the population is getting older, more resources need to be devoted to chronic illnesses.

Federal funding of Medicare has decreased significantly while the cost of the program was increasing. At the same time, the attitude of governments toward borrowing has changed as governments are now aiming at balanced budgets. As a result, governments are very reluctant to borrow for paying current expenses.

Issues to Consider

- As the potential for spending on health care is virtually unlimited, societies and their governments have to decide:
  - What proportion of the society's total resources should be devoted to public health care?
  - How should public funds be allocated among the various components of health care (hospitals, physicians, nurses, medication, etc.)?
- To what extent can the Medicare program of a Province be different from that of its neighbours?
- What works well in other countries may not work as well here;
- Who is the optimal payer for what?
  - What should be paid by the society as a whole (the government)?
  - What should be paid by employers?
  - What should be paid directly by the patients?
- How should the delivery of care be organized?
  - Public payer / public provider
  - Public payer / private provider
  - Private payer / private provider
- Requirements of the Canada Health Act
  - Do they still make sense in the 21st century?
- How to interpret the broad principles of the Act and what is meant by "medically necessary" or "accessibility"?
- Federal transfers
  - What is their most likely amount for the coming years?
  - What long-term commitment can be obtained from the Federal government?

Approaches Considered or Applied in Other Jurisdictions

- Long term planning

  The most promising approach seems to be long-term planning. The government has to evaluate how health care will evolve in the next 10 to 25 years and what services will be needed (and what will be the intensity of the need) 10 to 25 years down the road. The long-term vision should be updated every few years.

- Integrated health care management

  Another approach is to better coordinate the management of the various components of health care (hospitals, physicians, prescription drugs, home care, etc.). Savings done in certain components may be reinvested in other components of the system. Disease management is one of the steps leading to integrated health care management and has shown promising results. However, one must beware of horizontal silos whereby each type of medical condition (asthma, arthritis, cardio-vascular conditions, diabetes, gastro-intestinal disease, etc.) is treated on an integrated basis but solutions that are developed to address a particular condition and that could be applicable to other conditions are not optimally used due to a lack of synergy.

- National health policy

  The Canada Health Act may be part of both the problem and the solution. The Act covers only hospital and physician services. Innovations in treatment such as preventive health programs and community-based initiatives are not generally covered, nor are home care, long-term care, dental care and prescription drug therapies (unless provided in hospitals). On the other hand, conformity to the Act drives Federal subsidies.

  The Provinces should work together and with the Federal government to update the Canada Health Act and to come up with a national health policy that will be viable in the 21st century. Some of the requirements of the Act should be made less stringent, so that the Provinces are not hopelessly entangled in an inflationary spiral that they cannot control. Federal subsidies should not be allowed to vary according to the Federal government's will but should be guaranteed, so that the Provinces can budget their health expenses accordingly. On the other hand, essential health care should be accessible to all Canadians, regardless of their Province of residence.

Problem # 2: The Role of Prescription Drugs Is Likely to Grow in the Future

Description of the Problem

Prescription drugs save lives, prevent the spread of disease, help in diagnosis, improve the quality of life for many patients, and control pain and suffering. The use of prescription drugs to treat conditions that formerly required lengthy hospital stays or surgical procedures has lead to significant reductions in the average duration of a hospital stay and is an essential component of the shift toward ambulatory care.

Population aging means that, as more people reach retirement age, we can expect an increase in prescription drug consumption. Chapter 3461 of the CICA handbook now applies to private business and requires that a liability be set up now for benefits that will be payable when employees are retired. Even though it is not mandatory for public plans, it is a sound business practice. If governments had to do the same thing with their subsidized prescription drug programs, they would create major deficits as they would have to calculate and show a liability for the cost of the promise to pay prescription drugs to seniors, to they extent that the premium charged to seniors will not be sufficient to cover the cost of their coverage.

New drugs for the treatment of chronic conditions such as cancer and Alzheimer's disease are expected to hit the market in the coming years. These drugs will undoubtedly be expensive and will probably extend the patients' life expectancy, leading to significant increases in the use and average cost of medication.

The role of prescription drugs is likely to grow in the future as technological advances in pharmaco-therapy replace earlier treatment modalities or introduce therapies where none existed before.

Issues to Consider

- Need to control the availability and cost of prescription drugs:
  - Tighten criteria for allowing a medication to be sold in the Province
- In an ideal world, the use of medication should create savings elsewhere in the health care system:
  - Shorter hospital stays
  - Fewer surgeries

  However, the real world is far less than ideal and the use of medication may also drive the cost of other components of the health care system. For example, in 1998, Dr. Robert Coambs estimated that the direct cost (hospital, nursing homes and ambulatory care) of prescription non-compliance ranged between 3.5 and 4.5 billion dollars. Non-compliance is particularly important among the elderly.

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries:

- Develop information tools that will provide professionals access to the complete pharmacological file of a patient; these tools should focus on the identification of possible adverse drug interactions and make the physician and the patient aware of the cost of non-compliance. Measures must be taken to prevent unlawful use of personal information

- Implement efficient utilization review tools, to monitor and eventually improve the efficiency of treatments involving prescription drugs and to foster compliance
- Develop automated, interactive state of the art decision support tools (e.g. disease management information systems) that would assist physicians and patients in making appropriate clinical decisions
- Shift the focus of health care toward prevention
- Work on improving the general health of the population. Give incentives to citizens to adopt sound lifestyle habits and to drop harmful habits like smoking and excessive drinking
- Integrate health care management: better coordinate the management of the various components of health care (hospitals, physicians, prescription drugs, home care, etc.). Cost avoidances done in certain components may be reinvested in other components of the system

Problem # 3: Staggering Increase in Prescription Drug Expenses

Description of the Problem

Expenses for prescription drugs constitute the segment of healthcare expenses that has seen the greatest increase, especially when we consider the increase in utilization and the aging of the population.

The current trend in average cost is 15 to 20% and prescription drug insurance schemes cannot survive without periodic adjustments. This trend is not only due to increased utilization (increase in the number of prescriptions per patient) but also to the increase in cost per prescription, which outpaces inflation, mainly because doctors are prescribing newer, more expensive (and more effective, to some extent) drugs.

Issues to Consider

- Sharing the cost with the insured / patient under insurance schemes:
  - Should the insured have to pay a premium?
  - Should the plan have a deductible?
  - Should the plan have a coinsurance / co-payment?
  - Any flat amount deductible or out-of-pocket maximum will amplify the impact of inflation (see example p. 24, between Tables Q-2 and Q-3)
- Who should be the provider of prescription drug insurance?
  - Government?
  - Private sector?
  - A mix of both?

- How can the drug formulary (list of covered medications) be improved?
- Should generic substitution be encouraged? Should therapeutic substitution be encouraged?
  - The law may need to be modified to allow pharmacists to perform therapeutic substitutions
  - Drug companies can be expected to lobby intensively to counter generic and therapeutic substitution, as it would harm their business
- According to pharmaco-economics, the considerable increase in prescription drug cost is not necessarily bad in itself, since
  - Medication constitutes a technology that allows to shorten hospital stays, to replace surgeries, thus benefiting the provincial Medicare system
  - Medication improves the health of a patient, his well-being and eventually the quality of life of his family; it may also reduce the cost of other components of the health care system

  However, in some cases the use of prescription drugs merely delays surgery and when surgery is performed, the patient's condition may require extra care. In other cases, the increased use of prescription drugs may lead to increased adverse drug interactions.
- On the other hand :
  - Medication, if used incorrectly, can create serious health problems, thus increasing the cost of the provincial Medicare system; currently, the cost of prescription non-compliance (including adverse drug interactions) in Canada is estimated between 7 and 9 billion dollars, half of which in direct costs (hospital, nursing homes and ambulatory care)
  - Facilitating the access to prescription drugs without appropriate control may lead to over-utilization and unnecessary costs (in particular, the tendancy of physicians to frequently conclude a consultation with a prescription and the advertising done by drug companies are two areas of worry)
- No solution for the drug insurance system should be envisioned without looking at the health system as a whole
- Any solution should be analyzed taking the long term costs and benefits into account, not just the immediate costs and benefits
- Whatever the increase in the cost of prescription drugs, the overall trend in the cost of health care is what really matters
  - If the cost of the whole healthcare system increases faster than the income of the government, where will funding come from?
  - If the cost of prescription drugs increases faster than the remainder of the cost of health care and if the use of prescription drugs takes pressure off the cost of the other components of health, is it preferable to keep prescription drugs out of the public system, when possible, so that the government does not have to increase its revenues

through additional taxes? As a matter of fact, provinces already have a hard time managing their health budgets, so having to manage another budget that would increase much faster would do no good. The government would have to raise periodically its general revenues or the specific contributions used to fund a comprehensive prescription drug program.

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries (It must be kept in mind that the prescription drug policy in a particular country depends on the nature of the health care system, the values shared by the society as well as its collective wealth):

- Educate, inform and monitor doctors and pharmacists
- Develop automated, interactive state of the art decision support tools (e.g. disease management information systems) that would assist physicians and patients in making appropriate clinical decisions
- Implement efficient utilization review tools, to monitor and eventually improve the efficiency of treatments involving prescription drugs
- Prescription drug monitoring systems should be a priority area for development, leading to links between physicians, pharmacists, government paying agencies and the public. The privacy and confidentiality of this information must be protected
- Implement a HMO type of system (strongly encourage the patient to see a limited number of doctors, with only a few primary care physicians, preferably working at the same clinic; an expected result is that the patient would be better known by his doctor, who could then prescribe the most cost-effective medication)
- Allocate a global budget to doctors for prescription drugs; once this budget is reached, the excess cost is deducted from doctors revenues
- Limit the annual number of prescriptions for a patient, the excess being paid by him;
- Encourage therapeutic substitution (to reduce the sales of products whose higher price is not matched by increased value)
- Pay pharmacists a flat fee per prescription drug, so they do not benefit from selling more expensive drugs
- Apply a lowest price policy
- Apply comparison pricing: set the price of a medication such that it is comparable with the price of the same drug in similar provinces, states or countries
- Form associations with other provinces to attempt to negotiate lower prices for certain medications especially those generating the highest expenses of the drug insurance system

  - Australia purchases aggressively on the world market and appears to be able to supply its people with drugs at a much lower cost than obtains Canada.

- If a fund is dedicated to drug insurance, it should be regularly kept balanced and any deficit arising in a particular year should be compensated for during the following year
- Governments should cease managing each component of the healthcare system separately; economies made in other areas of the health care system because of the use of prescription drugs should be considered in determining a prescription drug budget
- Limit the profits or promotional expenses of pharmaceutical companies
- Shift the focus of health care toward prevention and disease management: prevent first, cure when possible and treat when necessary
- Work on improving the general health of the population. Give incentives to citizens to adopt sound lifestyle habits and to drop harmful habits like smoking and excessive drinking

Problem # 4: Over Utilization and Inappropriate Use of Medication (Non-compliance)

Description of the Problem

Prescription drugs are both over-utilized and inappropriately used. Inappropriate use includes taking drugs in the wrong dosage, at the wrong time, not long enough, not at all, or in combination with other drugs.

The following table illustrates the cost of non-compliance:

Hospital	**Cost ($ billions CDN)**
Direct Costs	
Hospital	1.78 – 2.74
Nursing homes	0.66
Ambulatory care	1.09
Subtotal	3.53 – 4.49
Indirect Costs	
Lost productivity	3.53 – 4.49
Total	7.06 – 8.98

Source : Coambs et al., 1998

In the preceding table, the figure for lost productivity has been set equal to the sum of direct costs. We are not sure of the reliability of this approximation. Direct costs seem more credible, though.

It is currently estimated (Coambs, Perreault) that 50% of drugs are not taken appropriately and that drug-related illness would represent anywhere between 10% and 30% of all hospital admissions (Anderson, 1995). The problem would be more serious among the elderly, for whom 28% of hospital admissions would be due to drug-related illness.

The need for efficient management of information is particularly important as drug interactions and contraindications are becoming more documented. Currently, for 24,000 drugs on the market, there would be 33,000 interactions, 6,500 contraindications for different diseases and 3,500 contraindications for allergies (Presentation by Dr. Robert Perreault at the Healthy Outcomes Conference, 2002).

Oftentimes, patients see different doctors for different medical conditions. This is particularly true with specialists. Doctors are often not aware of the medication prescribed to their patients by other doctors and may prescribe conflicting drugs. To make things worse, patients do not buy all their medication at the same pharmacy.

For example, a patient may see an ophtalmologist, get a prescription and buy medication at the pharmacy nearest to this doctor's, and then see a cardiologist, get another prescription and buy the medication at the pharmacy closest to the cardiologist. Using both medications at the same time may be counter-indicated but each pharmacist would not be aware of the other medication. The patient may end up in hospital, causing extra cost to the health care system. Eventually, the patient will need to replace the conflicting drugs with other medications, so he will spend even more money on prescription drugs.

Issues to Consider

- There is a stringent need for integrated delivery of health care:
  - Each doctor needs to have complete information about the patient (other medical conditions, other doctors seen, other medication prescribed)
  - Pharmacists are professionals who are the most knowledgeable persons on the subject of prescription drugs, yet their role is often limited to selling products prescribed by doctors, without even having the right to substitute the prescribed product with a more appropriate or more cost-efficient product
- Non-compliance is a major problem that needs to be addressed

- Modern drugs are extremely potent and may lead to dangerous consequences if taken inappropriately; the physician needs to have complete information about the applicability of a particular drug to a particular medical condition prior to writing a prescription
- Issues of confidentiality arise whenever the centralization of information and its use by other health professionals is contemplated

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries:

- Educate, inform and monitor doctors: a medical consultation does not necessary have to be concluded with a prescription
- Develop automated, interactive state of the art decision support tools (e.g. disease management information systems) that would assist physicians and patients in making appropriate clinical decisions
- Develop information tools that will provide professionals access to the complete pharmacological file of a patient
- Implement efficient utilization review tools, to monitor and eventually improve the efficiency of treatments involving prescription drugs
- Prescription drug monitoring systems should be a priority area for development, leading to links between physicians, pharmacists, government paying agencies and the public. The privacy and confidentiality of this information must be protected

Problem # 5: People Begin Using Medication Earlier in their Life and Use Them for a Longer Period

Description of the Problem

Because of better understanding of diseases, new and more effective drugs are used increasingly both to prevent the onset of disease and to alleviate future complications. People with difficult, chronic medical conditions tend to have their quality of life improved and their life expectancy increased. People thus tend to begin using medication earlier and, because of their longer life expectancy, take them for a longer number of years.

Issues to Consider

- Quality of life:
  - Medication, even though it may be expensive, improves the health of a patient and his quality of life
- Spirit of the Canada Health Act
  - Even though the Canada Health Act covers only hospital and physician services, the intent of the Act was that no Canadian resident should lose his life due to a lack of access to needed medical care. Even though there is disagreement on how to interpret the broad principles of the Act and the concepts of "medically necessary" or "accessibility", there is a consensus around the fact that prescription drugs, at least some of them, are needed to allow patients to live longer

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries:

- Shift the focus of health care toward prevention
- Work on improving the general health of the population. Give incentives to citizens to adopt sound lifestyle habits and to drop harmful habits like smoking and excessive drinking

Problem # 6: Drug Expenditure Needs to Be Managed

Description of the Problem

The various opportunities for cost shifting have distracted attention from the much more complex and controversial process of actual management and control. The status of prescription drugs as an essential public good makes them prone to cost escalation without limit. Comprehensive controls will be necessary to slow the growth of prescription drug expenditures.

As prescribers, physicians must participate in the management of drug expenditure. They must be made aware of the cost of their prescribing decisions for the patient and for the society as a whole. Particular attention should be paid to eliminating unnecessary prescriptions and to encouraging physicians to prescribe the most cost-efficient drugs, not necessarily the most expensive ones.

Issues to Consider

- Cost sharing
  - Cost sharing with the patient is considered to be a key in controlling the consumption of prescription drugs. If drugs are free, no control is possible as the patient will not even bother asking the doctor whether the drug is really needed nor to ask for a possibly less expensive medication
  - Cost sharing is best achieved by the use of a deductible, co-payment (flat amount per prescription) or coinsurance (flat percentage of the cost of a prescription drug); deductibles can however have a perverse impact as they may induce people not to get medication that they really need.
- How can the drug formulary (list of covered medications) be improved?
- Role of physicians:
  - Should physicians have a responsibility toward cost-efficiency?
  - Should they be accountable only to their patients or also to society as a whole?
- Need to control the availability and cost of prescription drugs:
  - Tighten criteria for allowing a medication to be sold in the Province
  - Tighten criteria for allowing a medication to be reimbursed by any public prescription drug insurance scheme (the use of medication should create savings elsewhere in the health care system, or have a better cost-efficiency ratio than drugs currently reimbursable)
- It is difficult for any government to control the price of prescription drugs as the pharmaceutical industry is an international industry and most medicines are manufactured either outside the province or outside the country

Approaches Considered or Applied in Other Jurisdictions

The approaches applicable to this problem are basically the same as for problem # 4 (Over Utilization and Inappropriate Use of Medication)

- Develop automated, interactive state of the art decision support tools (e.g. disease management information systems) that would assist physicians and patients in making appropriate clinical decisions
- Make physicians more aware of the cost of prescription drugs and the need for cost containment
  - Educate them
  - Make them manage a portion of the prescription drug costs (this can be done, for example, by giving each physician a prescription budget and require those who go over this budget to justify the extra cost)

- Develop information tools that will provide professionals access to the complete pharmacological file of a patient
- Implement efficient utilization review tools, to monitor and eventually improve the efficiency of treatments involving prescription drugs
- Prescription drug monitoring systems should be a priority area for development, leading to links between physicians, pharmacists, government paying agencies and the public. The privacy and confidentiality of this information must be protected

Problem # 7: There Are Powerful Incentives for Pharmaceutical Companies to Increase Sales of Prescription Drugs

Description of the Problem

The cost structure of the pharmaceutical industry creates very powerful economic incentives forcing manufacturers constantly to expand their sales. Pharmaceutical companies make huge investments in research and development and may analyze several products that show some potential for the treatment of a particular medical condition before they are able to put a new product on the market. They need the profit on a new product to be sufficiently high to cover the expenses incurred in developing that product (including the expenses incurred in developing unsuccessful products) and to bring a sufficient return on their shareholders' equity. Hence, they need to market their new product successfully. On the other hand, this will result in more drugs sold and increased utilization.

Another problem is the commercial practices of pharmaceutical companies. Companies are known to try to keep track of the prescription profile of physicians (who prescribes what product for what condition) and to try to influence physicians to prescribe their newest products. Practices range from giving physicians free samples to inviting them to seminars in luxury resorts, all at the expense of the pharmaceutical company.

Issues to Consider

- Confidentiality
  - ➢ Should pharmaceutical companies be allowed to obtain information regarding prescriptions issued by any physician?
  - ➢ Should it be illegal for pharmacists, prescription drug adjudication networks, insurers and third party administrators to disclose information regarding prescriptions made by any physician to anyone (other than the government) not involved in the payment of prescription drugs?

- Advertising
  - Should the right of pharmaceutical companies to advertise their products continue to be restrained? (Television, radio, newspapers, specialized publications, etc.?) Currently, it is still illegal to advertise prescription drugs; however, any publicity done outside Canada and available to Canadians via cable or satellite television is not controlled. Pharmaceutical companies can also advertise specific illnesses and recommend the public to ask their doctor about medication applicable to a particular condition without mentioning the product or invite people to consult a website that has the same name as the product they want to sell.
- Profit margins of Pharmaceutical Companies
  - Should profit margins of insurance companies be controlled?
  - How?
  - To what extent?

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries:

- Limit on profits or promotional expenses of pharmaceutical companies
- Price controls on prescription drugs
  - Negotiation between the government and pharmaceutical companies over the price of new prescription drugs
  - Comparison pricing: to set a price of a medication that is comparable with the price in other similar provinces, states or countries
- Legalizing therapeutic substitution to reduce the sale of products whose higher price is not matched by increased value
- Limiting coverage by any public scheme to products that satisfy cost-efficiency criteria
- Policy on the sale and distribution of prescription drugs
  - Allow a new drug to be sold only if it is either more efficient or less expensive than current products ("efficiency" needs to be strictly defined)
- Sole purchaser scheme
  - Australia purchases aggressively on the world market and tries to supply its people with drugs at a lower cost than under a free market scheme

Problem #8: Some New Drugs Are Only Minor Variations of Existing Products

Description of the Problem

Even though pharmaceutical companies claim to perform extensive research in Canada, it has been allegated that a significant portion of this research would focus on two areas: variations of existing drugs that provide moderate or no therapeutic improvement over existing medicines; and line extensions (usually a new strength) of existing products. This type of strategy is called "evergreening".

Issues to Consider

- Are pharmaceutical companies doing that to extend their patents?
- Should the government consider not allowing pharmaceutical companies to sell variations of a product at a higher price than the original product?

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries:

- Price controls on prescription drugs
  - Negotiation between the government and pharmaceutical companies over the price of new prescription drugs
  - Require that new products that are merely variations of existing products be priced consistently

Problem # 9: Need to Guarantee Access to Medically Required Services

Description of the Problem

One of the principles sought for in Canada's health care system is to make sure that the population has access to medically required services, without any financial barriers. Prescription drugs are increasingly becoming an essential component of health care.

Issues to Consider

- The Canada Health Act covers only hospital and physician services. Innovations in treatment like preventive health programs and community-based initiatives are not generally covered, nor are home care, long-term care, dental care and prescription drug therapies (unless provided in hospitals). Also, there is genuine disagreement on how to interpret the broad principles of the Act and what is meant by "medically necessary" or "accessibility"

- Universality has always been understood as meaning that everyone should be covered for medically necessary expenses under an insurance scheme
  - The Canada Health Act also requires that universal insurance be publicly administered; however, doubts have been increasingly raised about the capacity of a government agency to do a better job than the private sector
  - How would a public system be financed: general revenues, special fund, etc.?
  - Would the system be based on equality (same coverage & same contribution for everyone) or equity (take into account everyone's capacity to pay, consider everyone's needs)?

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries:

- Including prescription drug into the Provincial Medicare programs
  - This could be equivalent to making prescription drugs free to everyone
  - This would add an ever-increasing cost to the Provincial Medicare programs
- Mandating the coverage of prescription drugs by group insurance plans
  - This approach is used in Quebec
  - In the US, the State government can and does mandate employer-sponsored group insurance programs to include certain specific coverage

Problem # 10: Prescription Drug Insurance is not Available to Everyone

Description of the Problem

Some persons are not covered at all (part-time employees, self-employed, unemployed people, older students, etc.).

Currently, prescription drug coverage is more related to employment and income than to need. People with private drug insurance tend to be in full-time stable employment with generous benefit packages, and are correspondingly relatively healthy. Others whose attachment to the workforce is partial, unstable, or non-existent, are much less likely to have access to private coverage, or to be able to afford it if they do.

Issues to Consider

- Insurance is based on certain principles such as
  - Transfer of a risk to an insurer, in exchange for an appropriate premium
  - Risk selection : insurers try to charge each insured person with a premium that corresponds to this persons' s expected cost; some persons turn out to be uninsurable because they are certain to claim a huge amount of benefits, due to poor health
- Economic literature shows that the duty of an insurance system like prescription drug insurance is not to make up for social injustice; this function should be that of social assistance programs; the distinction between assurance and assistance is an important one:
  - Pure insurance (like private insurance) consists of risk sharing among an homogenous pool (automobile insurance, where rates are based on age, sex and experience / prior accidents is a good example of pure insurance)
  - Social insurance consists of risk sharing among the population as a whole, with a single premium rate (employment insurance is a good example of social insurance)
  - Social assistance is a redistribution scheme whereby the stronger elements of the population (those who work and have higher incomes) share their wealth with the weaker elements of the population (those who cannot work and have no income – cash welfare payments are an example of social assistance), without any reference to risk

  A decision has to be made as to whether the society wants to treat prescription drug insurance more like pure insurance or more like social assistance; this is the type of decision that helps shape a social program.
- Governments should consider socio-economical consequences of implementing a public drug insurance system, particularly on
  - Clients of the system and the general population
  - Pharmaceutical industry and insurance industry
  - Public finances
- Whenever a universal prescription drug insurance scheme or policy is contemplated, the role of the private sector must be carefully understood and considered
  - What to do with the current contributions made by employers toward prescription drug insurance coverage for their employees and their families?
  - Should the program be publicly run or mixed (Public-Private)?
  - How to deal with low-income people who are not on social assistance?
- The Quebec experience has shown that a universal prescription drug insurance program does not, per se, limit or control the increase in the cost and utilization of prescription drugs

- If prescription drug insurance becomes a social insurance program and private plans cease to exist, the government will lose the revenues generated by its premium tax on current private prescription drug insurance plans
- If a fund is dedicated to drug insurance, it should be regularly kept balanced and any deficit should be compensated for the following year.

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries:

- Australia has a universal, public-run, prescription drug insurance program embedded in a health policy regarding the use of prescription drugs
    - ➢ The system has a significant cost-sharing feature (non-concessional patients must pay the first $22.40 ($19.00 CDN) on each prescription; this must be put in comparison with Canada where it would be difficult to apply such a copayment as it would be almost equivalent to charging $19.00 per visit to the doctor, which has been considered unthinkable in the Canadian context)
- Quebec has a mixed, public-private, prescription drug insurance program
    - ➢ This system allows Quebec to take advantage of the employers' contribution while still being able to collect more than $100 million in insurance premium taxes on prescription drug coverage
- Mandating the coverage of prescription drugs by group insurance plans
    - ➢ This approach is used in Quebec
    - ➢ In the US, the State government can and does mandate employer-sponsored group insurance programs to include certain specific coverage
- Subsidizing coverage for low-income people

Problem # 11: Incentive for Lower-paid Workers to go to Social Assistance to Obtain Free Prescription Drug Coverage

Description of the Problem

It may be more advantageous for low income workers who need expensive medication (or whose spouse or children need expensive medication) to go on social assistance to receive subsidized medication rather than remaining in a job with no prescription drug insurance and where a significant portion of the income is devoted to the purchase of medication. Some can even try to get the best of both worlds by working without declaring their income and yet claim social assistance benefits, including subsidized prescription drugs.

Issues to Consider

- There is a gap in coverage between social assistance and low-paid jobs
  - Employers of low-wage earners may not have the financial capacity to pay for insurance covering their employees
  - It would be very difficult to force employers to set up group prescription drug insurance programs, especially in cases where there is no group insurance program at all, as it would be seen as unduly increasing the cost of doing business
- Unemployed seasonal employees, when they are eligible to employment insurance benefits, do not receive social assistance
  - They may feel like being treated unfairly compared with persons receiving social assistance
  - Even though their employer may have a group insurance plan, coverage is usually suspended during the time when they are not working
- Economic literature shows that it is not the duty of an insurance system such as prescription drug insurance to make up for social injustice. This function should be that of general income security programs such as social assistance
  - The gap in coverage between low earners and social assistance beneficiaries is probably not a sufficient reason for implementing a universal prescription drug insurance program
  - Some form of subsidization of prescription dugs based on the patient's income might be considered (e.g. refundable tax credit that would be inversely proportional to income)

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries:

- Universal, mandatory coverage
  - If everyone is covered, then the transition between social assistance and low-paid jobs is eased from the point of view of access to medication
  - Quebec mandates prescription drug insurance coverage for employees of employers who offer group accident & sickness or health insurance coverage and puts all other employees in a catch-all plan; as a result, employers are not obligated to implement a group insurance program
- Limit on the generousness of the plan covering social assistance beneficiaries
  - Having, in the social assistance program, a deductible and / or co-payments similar to those of private plans is a first step toward ensuring that social assistance beneficiaries are not treated better than workers; the deductible and co-payments may apply only to those who are able to work

Problem # 12: Any Prescription Drug Insurance Scheme Brings Cost Sharing Issues

Description of the Problem

Insurance is generally defined as a mechanism by which one party, the insured, transfers a risk (e.g. the risk of having to buy prescription drugs or the risk of not being able to afford needed medication) to another party, the insurer, in exchange for a consideration, the premium. The basic principle of insurance is that of pooling similar risks. As a result, the premium will be more or less the same for all the persons facing the same risk. Conversely, persons whose level of risk is different will be charged different premiums. The worst risks are often considered uninsurable, that is, the insurer will not be willing to cover them, whatever the premium.

Another feature of insurance is that it is a protection against unforeseen and unfavorable situations (risks) and that it is a mechanism intended to bring a person back to the situation where this person was before the risk occurred. Hence, insurance is not expected to bring the person to a better situation than before the occurrence of the risk. To this end, the insured is expected to share part of the cost arising from the occurrence of the risk, either via a deductible or a coinsurance.

As a result, prescription drug insurance coverage usually includes a premium, a deductible and coinsurance or co-payments. There may be a cap (Out-of-pocket maximum) on these cost-sharing features so that the insured will not have to support an unbearable cost.

Issues to Consider

- Premiums
  - To what extent should premiums be allowed to vary according to the risk of an individual?
  - How should uninsurable persons be treated?
- Should cost sharing be done with a deductible?
  - Most insurance plans have a deductible
  - Deductibles tend to exacerbate the impact of inflation and increases in utilization
  - Deductibles are seen as a greater obstacle toward obtaining medical care for the poor than for the affluent
  - The Australian scheme has a co-payment that takes the form of a deductible on a per prescription basis; this co-payment has to be increased from time to time

- Should cost sharing be done using a coinsurance or co-payment?
  - Coinsurance (flat percentage borne by the insured) is seen as more effective than co-payment (flat dollar amount per prescription) as it encourages the patient to ask for the least expensive medication
- In a universal program what part of the cost, if any, should be borne by the society (taxpayers) as a whole?

Approaches Considered or Applied in Other Jurisdictions

The following approaches are being applied or considered in Canada or in other countries:

- If a fund is dedicated to drug insurance, it should be regularly kept balanced and any deficit should be compensated for the following year
- There should be a cap on cost-sharing to prevent patients from supporting excessive costs

Section 5
Critical Factors Mitigating Cost Control

The rising cost of prescription drugs, both in absolute numbers and as a percentage of total health expenses has been a major concern for private group insurance plan sponsors and for governments over the last 15 years.

Although many approaches have been tried so far, no country, no province nor any employer or plan sponsor has been able to keep the cost of prescription drugs from increasing faster than inflation.

A number of reasons explain this situation. In this section, we list and briefly explain what appear to be the most important reasons why overall costs for prescription drugs are rising so fast.

Shift Toward the Use of Prescription Drugs

Over the last 30 years, prescription drugs were developed to:

- Extend the life span of otherwise condemned persons
- Replace surgery with less aggressive treatments
- Allow people to work despite illness or to return to work faster

Moreover, the shift toward ambulatory care seems to require a higher use of prescription drugs.

Extending the Life Expectancy of Patients

Thirty years ago, a person who had a heart transplant had a very short life expectancy due to the rejection process, whereby antibodies attacked and destroyed the new organ. This problem has been solved with the introduction of cyclosporine. As a result, the life expectancy is much longer but the patient must take medication for the rest of his life, at a hefty cost.

Twenty years ago, AIDS meant rapid death. With the advent of AZT, 3TC and other anti-retroviral agents, HIV positive persons can now live much longer. On the other hand, they have to take a heavy and expensive load of medication for the rest of their life.

New drugs for treating cancer are currently being developed and tested. There is little doubt that when these drugs will be made available, they will be expensive and patients will have to take them for a long period, thus increasing the prescription drug component of a cancer treatment.

Replacing Surgery with Less Aggressive and More Effective Treatments

The use of proper medication allows doctors to treat patients differently and to reduce, contain or delay surgical procedures. In some cases, medication may even be more effective than surgery. In other cases, medication merely delays surgery and may end up creating further costs if it cannot prevent health from deteriorating and surgery happens when a person is weaker, requiring additional care or longer hospital stays.

Examples of conditions that can be treated by either surgery or medication are numerous. Hyperthyroidism is relatively common among older persons. It can be treated by surgically removing the thyroid (in this case, the patient will need supplements to replace the substances normally produced by the thyroid) or by administering methimazole or propylthiouracil. In the latter case, the patient will probably have to take the medication for the rest of his life.

Cancer may be treated with surgery, chemotherapy or radiotherapy or a combination of procedures. Due to the risk of metastases, chemotherapy tends to be preferred over surgery, at least for some cancers, as it can attack cancerous cells that may be too small to be identified and removed through surgery. Extensive research is currently being done on medication that would either destroy selectively the cancerous cells or simply prevent them to multiply, thus controlling a cancer condition. These future drugs (some of which are already in an advanced phase of clinical testing) will probably replace a significant number of surgical procedures.

Drugs that Allow People to Work Despite Illness

Pharmaceutical companies have worked very hard over the last 20-30 years to improve existing drugs or replace them with products that have fewer secondary effects and that allow people to work despite an illness. Among the best examples of these drugs are those targeting asthma. With some of the most recent asthma drugs, people who would have been absent from work on a regular basis are now working full-time.

According to the theory of pharmaco-economics, the high cost of these drugs is more than counterbalanced by the higher productivity of workers. This concept is interesting but may have various impacts depending upon who exactly is paying for the drugs and who benefits from the workers' enhanced productivity.

For example, if the employer is paying for the expensive drugs that allow workers to lose fewer days of work due to illness, there is a definite gain inasmuch as the productivity increase is more than sufficient to cover the cost of these drugs. Now, if the total output produced by the employee remains unchanged even though the employee's number of sick days decreases (as would be the case with an employee who catches-up on his work after an episode of illness without being compensated for overtime), then introducing the new drug will improve the employee's morale but will just create an additional cost to the employer. Finally, we may have an even stranger situation if the government is paying for prescription drugs through a public plan. In this situation, the cost of the new drug is borne by the government (or ultimately by the taxpayers) while the benefit of enhanced productivity goes to the employer. The employer ends up making money at the expense of the government.

Shift toward Ambulatory Care

As people spend less time in hospital and are released earlier, doctors will often prescribe medication to be taken at home. Here, two situations may occur. In one case, the doctor is merely prescribing drugs that would have been taken in the hospital had the person remained hospitalized. In this case, the cost of medication is shifted from the hospital to the patient. In other cases, the doctor will prescribe drugs to be taken only if and when the patient feels uncomfortable (after a surgery for example). In this case, the patient will buy the medication but may end up not using it. Here we would have a net cost increase.

Attitude of Physicians

It has now become almost automatic to conclude a visit to the physician with a prescription. This is particularly true for conditions such as common cold and influenza. The patient feels more like being taken care of if the physician prescribes something. Since most insurance programs do not reimburse over-the-counter products, physicians will tend to prescribe other products that are covered by insurance plans but that may turn out to be more expensive than over-the-counter products.

Another problem is the tendency to prescribe antibiotics, especially the more expensive ones, for minor conditions. In certain cases, the antibiotics may not be useful to cure the illness. In other cases, prescribing newer antibiotics at large may actually have an adverse public health impact as a wider dissemination of new antibiotics enhances the chances that bacteria will become resistant to the product, resulting in the need for newer and even more expensive antibiotics.

Population Aging

The use of prescription drugs is positively correlated with age. The following table, based on RAMQ statistics for persons not covered under a private prescription drug insurance plan and who are not social assistance recipients, shows that the cost per covered person increases by 24.4% per 5-year age group (or 4.5% per year of age) :

Table Q-5
Cost of Prescription Drugs according to Age – Quebec 2000

Age	Nb of Persons covered	Nb of Claimants	Total Cost ($ '000,000)	% of Claimants	Cost / claimant	Cost / capita
20 - 24	148,571	83,384	19.96	56.1%	239.39	134.35
25 - 29	149,573	74,991	19.13	50.1%	255.15	127.92
30 - 34	136,917	69,202	19.90	50.5%	287.63	145.38
35 - 39	153,770	79,976	27.57	52.0%	344.75	179.31
40 - 44	143,048	77,310	31.96	54.0%	413.40	223.42
45 - 49	126,890	74,926	38.24	59.0%	510.37	301.36
50 - 54	124,478	84,980	53.95	68.3%	634.87	433.42
55 - 59	127,068	97,121	74.94	76.4%	771.59	589.75
60 - 64	143,402	118,808	110.21	82.8%	927.60	768.52
Average Increase				5.0% or 1.0% / year	18.5% or 3.5% / year	24.4% or 4.5% / year

Source :RAMQ – Annual Statistics 2000, Tables 5.03 and 5.09

It should be noted that the cost per covered person increases faster after age 40, being 6.3% per year of age between the 40-44 and 60-64 age groups.

If the population of the Province is getting older, the cost of prescription drug coverage can be expected to increase anywhere between 4.5% and 6.5% per year of age, depending upon the average age of the population.

This impact is major and cannot be controlled.

Advertising Done by Pharmaceutical Companies

Over the recent years, pharmaceutical companies have engaged into aggressive marketing campaigns for their products. With the globalization of telecommunications, a company can advertise its product on television in one jurisdiction that allows such advertising and the ad will be broadcast, through cable or satellite television, in jurisdictions where advertising of prescription drugs is not legal. In other instances, the pharmaceutical company can do an ad where they will tell people that they should discuss a particular medical condition with their physician and that their physician can help them by treating the medical condition, without necessarily even telling the name of the product that they want to sell. Certain ads for Viagra are a good example of this type of advertising.

The goal of all this advertising is obviously to sell more prescription drugs. To the extent that they are successful, pharmaceutical companies may create a demand for their product, resulting in higher cost for prescription drug insurance programs that cover these products. Another interesting result of advertising is that pharmaceutical companies can use advertising to have the public put pressure on insurance plans to cover their new products.

Pressures Exerted by the Pharmaceutical Industry

In some countries, the pharmaceutical industry was able to successfully fight cost containment measures by menacing the government to close their manufacturing plants and move their high-paying jobs to other countries. Germany is a good example of this type of confrontation as the government introduced a very strong cost containment measure (allocating prescription budgets to physicians and having physicians manage these budgets) and the industry was able to deflect this measure by exempting its more recent and expensive products (drugs put on the market after 1995) from it.

Freedom of Choice / Anti-selection

By allowing seniors who do not qualify for NBPDP to choose whether they want to be covered or not at a determined cost, it allows those in good health not to join the plan while those who do join the plan can be expected to do so because they think that they will recover their "investment" by claiming more than the premium that they pay. This is the purest form of anti-selection and may result in other healthy seniors leaving the plan, whose experience will deteriorate further, leading to ever-increasing premiums. In such a situation, the plan becomes interesting only for those in really bad health. This results in a vicious circle where the cost increases faster because people who remain in the plan are in poorer health and people remain in the plan only if their health is so bad that they still benefit from the plan despite ever-increasing premiums.

Section 6
Promising Approaches

Various approaches have been tried in different countries and provinces in order to control prescription drug costs. The success of these approaches has been mitigated by the factors described in the previous section. This does not mean that they cannot be efficient, though. Before looking at the most promising approaches for New Brunswick, one must not forget the cost control approaches already in use in the Province (generic substitution, stringent control on the list of prescription drugs covered by NBPDP, etc.). These approaches are described in the section dealing with the New Brunswick Prescription Drug Program. As a matter of fact, among all jurisdictions that we have analyzed in this report, New Brunswick seems to be one of the most pro-active regarding cost control.

Among all the approaches used in various countries and provinces and not already in place in New Brunswick, some appear to have a greater potential for cost control. These approaches aim at specific targets and the result of their implementation is or must be measurable. They are:

- Prescription Assistance with on-line adjudication
- Centralized purchasing of prescription drugs
- Price controls
- Coinsurance (or proportional co-payments)
- Prescription budgets allocated to physicians

The targets of these approaches are to:

- Limit the price of prescription drugs purchased
- Limit the volume of prescriptions by reducing the demand for prescription drugs
- Make people more conscious of the cost of prescription drugs
- Limit unnecessary prescribing
- Increase the efficiency of prescription drugs by ensuring that the right medication is prescribed at the right dose

Some of the most promising approaches may aim at more than one of these targets. The better approaches are those that can generate recurrent savings through improved efficiency in the system.

Prescription Assistance with On-line Adjudication

Claims to the NBPDP plan are submitted by means of a network and adjudicated on-line by a central processing unit. A central computer checks the claims and determines whether it can be approved for payment. The checks include the following:

- ➢ Is the drug covered by the plan?
- ➢ Does the beneficiary have health coverage and what type?
- ➢ Is the quantity dispensed within appropriate limits?
- ➢ Is the number of prescriptions for the beneficiary within limits?
- ➢ Is the prescription a duplicate or possible duplicate of another prescription?
- ➢ Are the unit costs within limits?
- ➢ Is the prescriber authorized?

If this process were done from the doctor's office instead of being done from the pharmacy, it would be possible to use the system to assist physicians in selecting the most appropriate and cost-effective drug therapy for their patients. Using a network similar to Interac™ or to networks already used by insurers for on-line drug adjudication, it would be possible for the doctor to have access to a patient's pharmacological file, where all the previous prescriptions would be mentioned. When making a new prescription, the doctor or his assistant would enter the prescription in this file, so that the information would be available to any other doctor. This would require using the patient's health insurance card as a key to enter the network, to guarantee confidentiality of the data. The on-line adjudication system would then approve the prescription or warn the physician against possible adverse situations such as:

- The proposed medication interacting adversely with other medication already taken by the patient and prescribed by another physician;
- "Doctor Shopping", whereby the patient may be consuming too much medication as a result of seeing too many doctors in a short time span.
- The proposed medication having been prescribed in the past and found inefficient (this can easily be seen with a minimum amount of information, such as the name of the product and the date of the prescription: if, within a short time span, a patient received two different drugs that are used for the same illness as the one for which he is currently seeing the doctor, there should be ground to prescribe the second medication instead of the first)

The system can also assist the physician in selecting the most appropriate and cost-effective drug therapy for the patient. To do so, the system would need to know:

- The diagnosis
- What other medication the patient is taking
- When did the patient consult another physician

Advantages of this Approach

- It would help control costs by letting the physician know the best cost-efficient prescription drug for a particular diagnosis
- It would help identify potential adverse drug interactions and contraindications beforehand, resulting in better care for the patient
- It would help identify people who over-utilize prescription drugs and would allow the physician to address this problem
- It would protect the physicians against pressures from pharmaceutical companies to prescribe specific products as the physicians could now tell the companies that he is prescribing a product based on this product's recognition as to cost-efficiency
- Private plans would also benefit from this approach

Disadvantages of this Approach

- Developing the system may be expensive; on the other hand, it will probably have to be done anyway, so the question may be more "when" than "what"
- Physicians would have to consult an on-line patient file and then add information to this file by entering the diagnosis and the medication prescribed; they could feel that it is increasing the duration of a patient's visit

Centralized Purchasing

In Australia and Sweden, the government is involved in the negotiation or purchase of prescription drugs for the pharmacies. The Australian PBS operates as a sole purchaser system, with the government controlling the cost of covered prescription drugs. In Saskatchewan, the Drug Plan monitors the use of a particular drug to ensure that utilization and health outcomes occur as stated in the manufacturers documentation submitted to the Saskatchewan Formulary Committee. Where that does not occur, an intervention may happen and a financial adjustment may be made against the manufacturer.

A centralized purchasing system may allow the government to negotiate lower prices for prescription drugs because if the government refuses to buy the product for its drugs scheme or include the product on its list of covered drugs, sales will be very low and the pharmaceutical company will make little profit. Interestingly, the Montmarquette committee proposed that Quebec join other Provinces in setting up a national purchasing alliance to obtain prescription drugs at the best possible cost. This approach is worth exploring.

Advantages of this Approach

- The government could get better prices on prescription drugs

Disadvantages of this Approach

- It would require an extra effort to set up or participate in an alliance with other provinces
- It would create an administrative burden, resulting in a higher administration cost

Price Controls

Many jurisdictions control the price of prescription drugs.

In the UK, drug prices are controlled under the pharmaceutical price regulation scheme by which the department of Health controls the maximum profit that companies are allowed to make on their sales of medicine to the NHS.

In Australia, the cost of a PBS medicine is made up of three controlled elements: an agreed price negotiated between the Australian government and the manufacturer, a controlled mark-up applied by wholesalers and pharmacists; and a pharmacist dispensing fee determined by an independent tribunal. The wholesaler's margin on the manufacturer's price is set at 10%. The average dispensing fee for the period ending June 30, 2002 is $6.76 AU (or $5.68 CDN) per script. It is made up of a flat $4.40 A dispensing fee plus a mark-up that depends on the wholesale price,(10% up to $ 180 A, $18.00 A between $180 A and $450.00 A and 4% if the wholesale price is above $450 A).

In Sweden, the pricing of pharmaceuticals is free. However, if a product is to be covered by the Drug Benefit Scheme, the company marketing the product must apply to RFV (a.k.a. the National Social Insurance Board) for establishing a reimbursement price. Prices are granted for each formulation, dosage and pack size. In general, this system aims to award an "international price". Other key objectives are to achieve a narrow Scandinavian price corridor and an average therapeutic class price, unless there is clear evidence of marked clinical gain by an innovative product.

In Saskatchewan, there is a maximum dispensing fee of $7.22 and the following maximum mark-up allowance:

- 30% for drug cost up to $6.30
- 15% for drug cost between $6.31 and $15.80
- 10% for drug cost above $15.80, with an overall $20.00 maximum cap on pharmacy mark-up.

All these systems have been working for some time now and have not unduly restricted access to required medication for patients. However, at this point, it is not clear how many dollars would be saved as a result of price controls on prescription drugs in New Brunswick. It might be interesting to explore this issue with representatives of the Saskatchewan Prescription Drug Program.

Advantages of this Approach

- The government could get better prices on prescription drugs
- The private plans would also benefit from this approach

Disdvantages of this Approach

- A whole framework would have to be developed
- The potential savings is difficult to assess
- Pharmaceutical companies can be expected to be less than enthousiastic with this approach

Coinsurance or Proportional Co-Payments

Quebec is currently considering raising its coinsurance percentage and abolishing its deductible. The problem with a deductible is that if it is not indexed, it leverages the impact of inflation because inflation applies to the total average cost of prescription drugs (including the portion covered by the deductible). To some extent, the same can be said of flat co-payments. For example, with a $10 co-payment, an average cost of $35 / prescription and an average increase of 10%, the net cost goes from $25 in a year to $28.50 the next year ($35 x 110% - $10), an increase of 14%.

Using a coinsurance or proportional co-payment such as 20% or 30% of the cost of prescription drugs alleviates this problem. In the preceding example, a 30% coinsurance would produce a cost of $24.50 in the first year and $26.95 (a 10% increase) the following year, because the reimbursement is automatically indexed at exactly the same rate as eligible expenses. This rate is usually far higher than the inflation rate.

Another advantage of a coinsurance versus a co-payment is that it removes the incentive to for the patient to ask the pharmacist to dispense larger quantities of medication. For example, with a $10 co-payment and a patient who needs a particular drug on a continuous basis, at the cost of $35 / month, a 2-month supply will attract only one co-payment and the system will pay $60 (2 x $35 – $10) while a 30% coinsurance would make the system pay only $49 (2 x $35 x 70%) for the same quantity.

A coinsurance can hardly be seen as unfair since it is a direct cost-sharing. The patient pays more only if the plan pays more. Also, for less expensive drugs, it is more generous. For example, a 30% coinsurance on a $20 drug will produce a reimbursement of $14 while a $10 co-payment will produce a reimbursement of only $10. If the patient has a choice between an expensive drug and a cheaper one, the coinsurance will cause an incentive to get the cheaper one (since the patient will pay less) while the co-payment will cause an incentive to get the higher priced drug since the cost will be the same to the patient and the more expensive drug can be presumed to be more efficient, even though it may not necessarily be the case.

Advantages of this Approach

- No leverage of inflation / utilization
- It makes people aware of the cost of medication
- It removes the incentive for the chronic patient to ask the pharmacist for a larger supply

Disdvantages of this Approach

- It may produce a significant out-of-pocket expense for the less affluent and chronically ill persons (this can be alleviated by putting a cap on the cost sharing supported by the patient; the cap can be income-related or not)

Prescription Budgets allocated to physicians

The German approach of allocating a prescription budget to physicians and have them pay a portion of any costs over their budget may actually be more promising in New Brunswick than in Germany. Since the pharmaceutical industry is not a major industry in the Province, it would be almost impossible for the industry to make successful pressure on the government to exempt their newer products from such a measure.

The prescription budget allocated to a physician could be based on statistics such as the number of patients treated in the previous year or the number of patient visits in the previous year. This number would be multiplied by either an allocation per patient or per visit. The allocation should vary according to the type of physician (general practitioner vs. various types of specialists) and possibly the type of clientele of the physician (this would require further thought, however, because the goal of this approach is to have physicians prescribe what is really necessary and useful to the patient, so if a physician has a clientele that tend to over-consume prescription drugs, this problem would be better addressed by giving a budget based on a normal consumption rather than on the excessive consumption of a particular physician's clientele).

The insurance industry would probably welcome such a measure quite favourably as it would benefit their clients since the consumption of prescription drugs would be controlled / reduced for the population of the Province as a whole, including persons covered under private plans.

Advantages of this Approach

- It would make physicians more conscious of the need for cost containment
- It would leave the prescribing decision where it belongs: in the hands of physicians
- It would give physicians a powerful incentive to manage the problem of prescription non-compliance
- It would be minimally disruptive, as it can be implemented without implementing a Province-wide prescription drug program
- Based on the German experience, it would produce significant permanent cost savings
- The Province already has responsibility for covering the elderly and the social assistance recipients and is accountable to its citizens for managing this coverage, yet it has no authority on the prescribing process; the approach considered here would address this situation
- It can be exported to other provinces, making New Brunswick a leader in prescription drug cost containment in Canada

Disadvantages of this Approach

- Physicians would need to adapt to something that they have never done (prescription drug management)
- It can hardly be done on a stand-alone basis (it is preferable to combine such a measure with prescription assistance to the physician, to help the physician identify the most appropriate medication from a cost / efficiency point of view)

It would need to be carefully explained because the physicians may see it as an intolerable infringement on their field of practice

Section 7
Conclusion

The rising cost of prescription drugs, both in absolute numbers and as a percentage of total health expenses has been a major concern for private group insurance plan sponsors and for governments over the last 15 years.

A review of the situation in other provinces shows that, over the last 3 years, the cost increases in the NBPDP were not very different from cost increases in Ontario and were lower than in Quebec. Saskatchewan has a prescription drug insurance plan very different from that of New Brunswick. However, some of the cost control measures taken in Saskatchewan can be interesting and should possibly be analyzed further. From an international point of view, the cost of prescription drugs does not seem to have increased more in Canada than in Australia, United Kingdom and Sweden.

Although many approaches have been tried so far, no country, no province nor any employer or plan sponsor has been able to keep the cost of prescription drugs from increasing faster than inflation. A number of reasons explain this situation. The most important, in our opinion, are

- A shift toward the use of prescription drugs
- The attitude of physicians, who tend to conclude a patient visit with a prescription
- Population aging
- Advertising done by pharmaceutical companies
- Anti-selection in plans where people can elect to participate or not

Various approaches have been tried in different countries and provinces in order to control prescription drug costs. The success of these approaches has been mitigated by the above factors. This does not mean that they cannot be efficient, though. As a matter of fact, among all jurisdictions that we have analyzed in this report, New Brunswick seems to be one of the most pro-active regarding cost control, with measures such as generic substitution, drug utilization review, stringent control on the list of prescription drugs covered by NBPDP, etc

Among all the approaches used in various countries and provinces and not already in place in New Brunswick, some appear to have an interesting potential for cost control. These approaches are:

- Allocating prescription drug budgets to physicians
- Prescription assistance with on-line adjudication
- Centralized purchasing of prescription drugs
- Price controls
- Coinsurance (or proportional co-payments)

Allocating prescription drug budgets to physicians, combined with negotiation on drug prices and with prescription assistance / on-line adjudication seems to be the most promising approach, as it targets overutilization and non-compliance and also tries to solve problems related to the use of conflicting medication. This approach could eventually help save money at no one's expense since it would do so by improving the efficiency of prescription drugs. The prescription drug on-line assistance may, however, require significant developments in data processing and networks as it would require the development of a centralize patient file accessible on-line.

Centralized purchasing of prescription drugs seems to have had some success in other countries and would probably be worth a closer look. Price controls seem to work well elsewhere but require an active intervention of the government. Replacing flat co-payments with proportional coinsurance would be rather easy to do and may foster the use of less expensive drugs. It is definitely an approach worth exploring.

Appendix A
Major Recommendations issued by the Montmarquette Committee

The Province of Quebec has a universal public-private prescription drug insurance program since July 1, 1996. The law creating this program called for a review of the program after 3 years. Consequently, a report was published on December 15, 1999, under the title "Évaluation du régime général d'assurance médicaments". This report concluded that the program had had a generally positive impact (such as the rationalization of the use of prescription drugs among seniors), and identified the following areas of concern:

- Fast increase (approximately 15% / year) in the cost of the public segment of the program
- Significant deficit in the public segment of the program
- Important increase in the cost of insurance for social assistant recipients and seniors
- Problems with the criteria used to determine whether a new drug should be covered under the program
- Sub-optimal or inappropriate utilization of prescription drugs

This report was followed by another report, tabled on February 2, 2000 under the title "Les pistes de révision du régime général d'assurance médicaments". This report concluded that he two major challenges for the program were:

- Cost containment, to be potentially addressed via:
  - ➢ Reviewing the "15-year rule" in order to apply the lowest price as soon as a generic version of a prescription drug becomes available
  - ➢ Implement reference-based pricing (either pay the price of the product with the best cost/efficiency ratio or set a maximum price for certain medication)
- Funding, to be potentially addressed via one of the following:
  - ➢ Increasing the premium to balance the Drug Insurance Fund
  - ➢ Increasing the premium to balance the Drug Insurance Fund while increasing the participant's cost-sharing (deductible, coinsurance and out-of-pocket maximum)
  - ➢ Having the Drug Insurance Fund funded solely by the "adhérents" who would then be paying a higher premium
  - ➢ Increasing the premium and compensate the low-income persons
  - ➢ Putting the "adhérents" in a private plan
  - ➢ Set up a catastrophe plan for the "adherents"
  - ➢ Turn the program into a single universal public plan

The Quebec government then considered the possibility of putting everyone in the RAMQ plan and has set up a committee, chaired by Professor Claude Montmarquette, whose mandate was to formulate recommendations on the relevance and feasibility of a public universal prescription drug insurance program, along with funding approaches to adopt in order to foster equity, economic efficiency and global management of the health care system.

The Montmarquette Committee soon decided to expand the scope of its undertaking to the whole issue of financing and organizing prescription drug insurance and to the close ties between this type of insurance and health insurance as a whole.

The committee issued seven major recommendations and a number of additional points of view. Although these recommendations and points of view do not necessarily apply to the situation in New Brunswick, we consider them to be sufficiently interesting and potentially relevant to a general discussion of public prescription drug insurance. Also, we are not aware of the existence of any English translation of the Montmarquette report for the time being.

These recommendations made by the Montmarquette committee are listed below:

1. **The Committee does not recommend the implementation of a public universal prescription drug insurance program. Instead, the Committee recommends maintaining the joint, private-public character of the current program.**

   This recommendation is based mainly on the following considerations :
   - The employer's contribution, in private plans, takes pressure off public resources;
   - The elimination of private plans would deprive the Quebec government of approximately $148,000,000 per year in taxes on insurance premiums;
   - A universal public plan would have to be funded with taxes or premiums collected through the tax system, creating an additional tax burden, that would bring the risk of tax fraud and would reduce the incentive to work and to invest;
   - The presence of private plans provides further safeguards to guarantee that the general program will remain an insurance program rather than becoming an assistance program as the role of a specific insurance plan such as the prescription drug insurance plan is not to correct social inequities. This redistribution function must be assigned to general programs of income security, such as employment assistance and to the general taxation system;
   - The presence of private plans provides benchmarks that make possible a better control on the extent of the insurance coverage; if there is no point of comparison with the private sector, there is a material risk that coverage be extended beyond what seems to be optimal for the society considering the advantages and the opportunity cost of resources;

- The presence of private plans offers additional opportunities for innovation to answer the challenges facing the general program of prescription drug insurance;
- The presence of a public plan makes financial assistance to low-income persons possible.

2. **The Committee recommends that the mandatory character of participation to the general program of prescription drug insurance be maintained.**

   What the committee means by "general program of prescription drug insurance" is the public-private program. In other words, the committee considers that participation to a group prescription drug insurance plan should remain mandatory whenever a person is eligible to such plan by virtue of his / her current or former employment or occupation. The purpose of this recommendation is to prevent anti-selection.

3. **The Committee recommends maintaining the financial participation of the insured, by the means of premiums and of a financial contribution in the form of coinsurance at the time the insured purchases prescription drugs.**

   This recommendation is based mainly on the following considerations :
   - The identification of a specific premium leads the citizens to better understand the financial stakes and the arbitrages that must be done to guarantee the permanence of the program;
   - A premium is one of the elements that characterize an insurance program and make it distinct from an assistance program; however, the committee agrees with the principle of low-income people being granted special assistance to help them pay their premium or simply be charged a lower or zero premium, as is currently the case;
   - The deductible should be eliminated because it is too low ($8.33 / month) to reduce the number of claims and yet it is considered high enough by the very low income persons to prevent them from acceding to needed medication; it is also difficult to explain and can be circumvented by buying a supply of prescription drugs that will last for more than one month. As a counterpart, coinsurance should be increased accordingly.

4. **The Committee recommends a more transparent and more equitable financing of the public prescription drug insurance plan.**

Even though the initial principles were clear on the fact that adults insured in the RAMQ plan should pay a premium that would correspond to the cost of insurance for an adult between the ages of 18 and 65 and that seniors would pay the same premium (the excess of their cost over the average cost for adults between 18 and 65 was to be subsidized by the government), the financing of the RAMQ plan has evolved into a complex subsidization scheme, where premiums vary according to income and seniors are subsidizing participants while being themselves subsidized by the whole population.

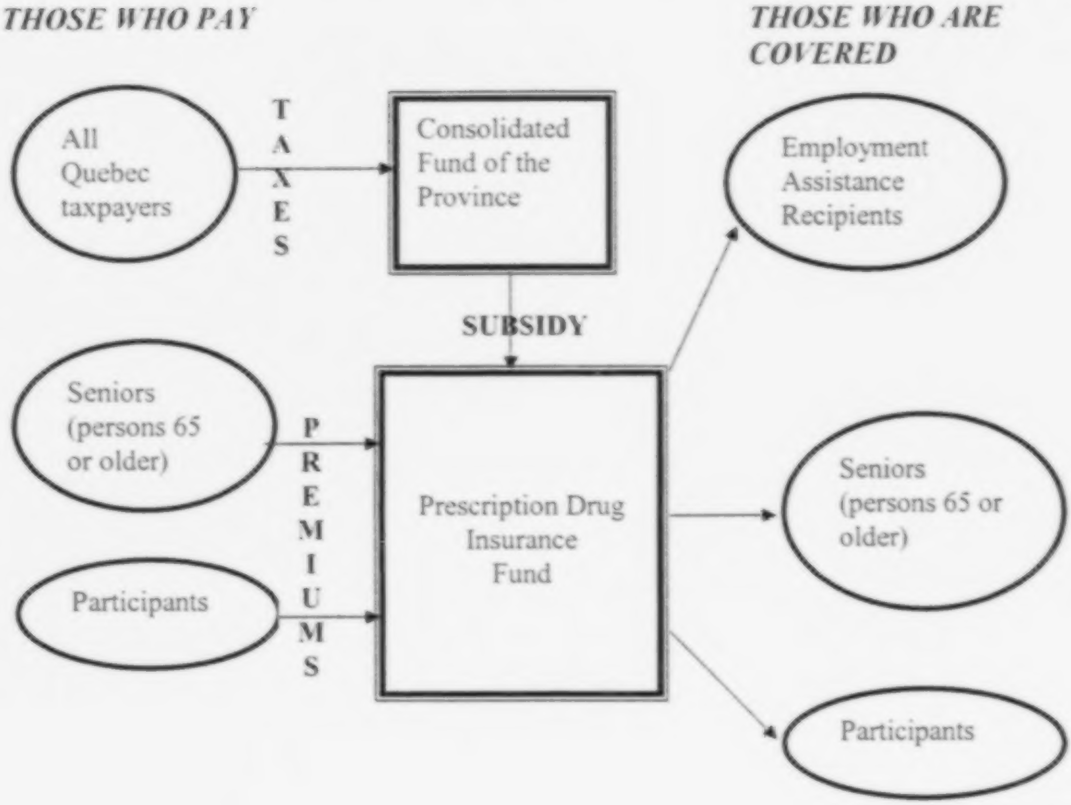
Currently, all premiums are paid to the Prescription Drug Insurance Fund while the Fund pays only the cost of prescription drugs for participants (residents below age 65 who are not covered under a private plan).

This situation can be explained by the fact that the premium paid by the participant in the RAMQ plan is based on their income. For 2001, the premium rate varies between 4% and 6% of income over a variable exemption for persons who do not have a spouse and from 2% to 3% of the combined family income over a variable exemption for persons who have a spouse. The exemption varies according to the number of children and also depends upon whether the participant has a spouse or not. In all cases, the premium is limited to $385 / adult.

As a result, a significant proportion of participants and seniors pay little or no premium. For example, even though the maximum premium is $385 / adult, the average premium paid by participants in 2001 was only approximately $247. So, while the maximum premium went from $175 to $385 (a 120% increase), the average premium rose only from $149 to $247 (a 66% increase). Hence, higher income participants end up subsidizing lower income participants. The resulting amount of premiums paid by all participants is not sufficient to cover their cost, so they need additional funding that comes from the seniors' premium.

The Montmarquette committee is quite uncomfortable with all these subsidies and considers that an appropriate premium should be determined and paid by all participants and seniors who can afford it. Low-income participants and seniors would have their premium subsidized by the government. All premiums and subsidies would be channelled to the Prescription Drug Insurance Fund that would pay the portion of cost of prescription drugs not supported by the persons covered in the RAMQ plan, as can be seen in the following chart:

PROPOSED FINANCIAL STRUCTURE FOR THE RAMQ PLAN


THOSE WHO PAY
THOSE WHO ARE COVERED
All Quebec taxpayers
TAXES
Consolidated Fund of the Province
SUBSIDY
Seniors (persons 65 or older)
Participants
PREMIUMS
Prescription Drug Insurance Fund
Employment Assistance Recipients
Seniors (persons 65 or older)
Participants

5. **The Committee recommends that data exchange between RAMQ and the Ministry of Revenue be facilitated in order to improve fairness in the financing of the plan.**

   It happens, in some cases, that persons are covered under a private insurance plan that does not cover prescription drugs and that, voluntarily or not, they still declare that they are covered under a prescription drug insurance plan. In this situation, the public plan will not require the premium even though it should.

   Hence, the committee considers appropriate to explore, jointly with the private sector, the possibility of issuing an insurance certificate that would confirm that a person has been covered for prescription drugs under a private plan during a given period. This certificate could then be appended to the income tax return to prove the private insurance coverage.

6. **The Committee recommends a review of the criteria used to determine whether a drug must be included on the list of prescription drugs reimbursed or not. The Committee also recommends that the advantages and the costs of the current prescription drug reimbursement formula be re-evaluated.**

   The Committee suggests a revision of the criteria governing the inclusion of prescription drugs in the list in order to better integrate the scientific, social and economic dimensions. To do so, economic analyses of the cost/efficiency type or cost/benefits type for prescription drugs should be required.

   Regarding the reimbursement formula for prescription drugs, the implementation of a policy of reimbursement based on the lowest cost formula seems attractive at first sight, as it would foster a better control of the expenses of the plan. However, maintaining a strong pharmaceutical industry in Quebec is a major policy issue for the Province considering that Quebec has a relatively large share of the Canadian pharmaceutical industry. As a result, the government might choose to maintain the current reimbursement formula.

   Still, the committee considers that a reimbursement formula based on the lowest price (or the reference price) generates only modest savings and has no impact whatsoever on the dynamics of expense growth that depends chiefly upon the utilization of prescription drugs.

7. **The Committee recommends the creation of three mechanisms aiming at a better control of the utilization of prescription drugs:**

    i) **A fund financed by the pharmaceutical industry, with the participation of the government, to be used for implementing measures in order to follow-up on the utilization of prescription drugs;**

    ii) **Consensus Conferences on the recommended utilization of prescription drugs;**

    iii) **A program of preventive disease management**

    The goal of the follow-up program would be to decrease the over-utilization, bad utilization and under-utilization of prescription drugs. This program would be consistent with the logic underlying the preventive disease management approach, that consists in early intervention whenever possible with the objective of preventing first, curing when possible and dispense care when necessary.

    Representatives from specialized hospitals, experts in public health, family physicians and researchers would be asked to participate in consensus conferences (in the sense in which this expression is used in medical science). These conferences would be given a mandate to look at the broad classes of prescription drugs in order to determine, based on the research results, the relevance and the need for the main therapeutic options and to construct a classification of prescription drugs, based on their recommended utilization in 1^{st}, 2^{nd} or 3^{rd} line.

    Based on this classification, it would be possible to develop a differential reimbursement model in order to incite the physician not to use expensive drugs outside their standard indications and to favour the use of prescription drugs that have a demonstrated value for public health.

    The committee also pointed out that measures must be taken to implement a process that should lead within a few years to the development of information tools such as electronic prescription and access, by the physician, to the complete pharmaceutical file of the patient.

OTHER RECOMMENDATIONS FROM THE MONTMARQUETTE COMMITTEE

The committee addressed a certain number of issues that had been raised by various groups and made the following recommendations:

- Since a majority of employers pay more than 50% of the premium for prescription drug insurance, the government **should not require** that, for persons covered under a private plan, the premium be expressed as a percentage of income;
- The government should not forbid private plans to charge premiums and to apply deductible and coinsurance to children;
- The government should not mandate pooling of large claims between the RAMQ plan and private plans;
- Regarding the issue of mandating pre-funding of future prescription drug expenses (via an old-age insurance program, for example) the government should be extremely prudent with this issue due to the inversion of the age pyramid, to make sure that younger persons do not end up paying twice (for themselves and for their predecessors);
- The government should examine the possibility of working with other Provinces to negotiate reductions in the price of certain drugs, especially those that generate the highest expenses in the drug insurance plan;
- The Quebec government should also examine the possibility of exchanging information relative to the list of covered prescription drugs and to the evaluation of the efficiency and utilization of prescription drugs with other Provinces;
- By allowing private group insurance plans to cover prescription drugs, it is possible to use employers to increase pressure on pharmaceutical companies when the price of prescription drugs becomes excessive since employers pay an important part of the prescription drug insurance premiums of their employees.
- Quebec deliberately applies a policy of industrial development favouring the installation of pharmaceutical companies on its territory; the application of this policy should be made with the highest possible transparency and it should be based on analyses of the cost/benefit type, considering the social opportunity costs of the public resources that are devoted to the pharmaceutical industry.

Appendix B
The Current Situation in Quebec and New Brunswick

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Table A : Current Situation in New Brunswick

		Cost (2000 Figures)										Quebec Statistics (Comparison)		
			Patients		Employers		Number	% of	Nb. of prescr.	Average Total Cost		% of	Average Total Cost	
	Number	Government	Cost-sharing	Premiums	through private plans	Total	of Claimants	Claimants	/ Claimant	/ claimant	/ insured	Claimants	/ claimant	/ insured
a) Persons Receiving Social Assistance														
– Below age 20	20 356 (1)	$1 538 197 (1)	$126 953 (1)	$0	$0	$1 665 150	15 043 (1)	74%	4,51 (1)	$111	$82	58%	$156	$91
– Aged 20 through 64														
• able to work	n/a	n/a	n/a	$0	$0	n/a	n/a	n/a	n/a	n/a	n/a	64%	$540	$346
• unable to work	n/a	n/a	n/a	$0	$0	n/a	n/a	n/a	n/a	n/a	n/a	87%	$2 065	$1 789
• subtotal	35 156 (1)	$21 947 094 (1)	$1 979 569 (1)	$0	$0	$23 926 663	33 777 (1)	96%	18,03 (1)	$708	$681	71%	$1 121	$797
– 65 and over	335 (1)	$294 774 (1)	$27 155 (1)	$0	$0	$321 929	381 (1)	114%	20,01 (1)	$845	$961	85%	$1 415	$1 206
Total	55 847	$23 780 065	$2 133 677	$0	$0	$25 913 742	49 201	88%	13,91	$527	$464	67%	$881	$594
b) Seniors														
– receiving GIS (A & V)	46 904 (1)	$39 391 758 (1)	$6 831 757 (1)	$0	$0	$46 223 515	43 713 (1)	93%	28,97 (1)	$1 057	$985	88%	$1 455	$1 285
– Income test & V Non-GIS	4 155 (1)	$3 686 007 (1)	$630 802 (1)	$0	$0	$4 316 809	4 146 (1)	100%	28,70 (1)	$1 041	$1 039	91%	$1 341	$1 214
– who pay premiums	11 034 (1)	$1 588 896 (4)	$2 543 513 (11)	$8 328 648 (1)	$0	$12 461 057 (3)	11 101 (1)	101%	23,02 (1)	$1 123	$1 129	88%	$1 223	$1 078
– outside the system	36 147	$0	$27 917 600	$0	$2 169 000 (6)	$28 917 600 (5)	36 147	100%	22,40 (7)	$800	$800 (5)			
Total	98 240 (2)	$44 666 661	$37 923 672	$8 328 648	$2 169 000	$91 918 981	95 107	97%	25,77	$966	$936	82%	$1 287	$1 057
c) Other Government Plans	5 361 (1)	$9 452 337 (1)	$616 850 (1)	$0	$0	$10 069 187	5095 (1)	95%	27,61 (1)	$1 976	$1 878	n/a	n/a	n/a
d) Other residents														
– Insured under private plans														
• below age 20	109 328 (8)	$0	$1 515 220	$3 257 723	$6 050 057 (12)	$10 823 000	65 597 (9)	60%	n/a	$165	$90	60%	$165	$87
• aged 20 through 64	310 207 (8)	$0	$7 621 740	$16 386 741	$30 432 519 (12)	$54 441 000	201 635 (9)	65%	n/a	$270	$302	65%	$270	$164
– Uninsured														
• below age 20	46 410 (8)	$0	$4 212 000	$0	$0	$4 212 000	25 525 (10)	55%	n/a	$165	$108	52%	$165	$87
• aged 20 through 64	131 683 (8)	$0	$23 110 000	$0	$0	$23 110 000	85 594 (10)	65%	n/a	$270	$362	61%	$270	$164
– Subtotal														
• below age 20	155 738 (2)	$0	$5 727 220	$3 257 723	$6 050 057	$15 035 000	91 122	59%	n/a	$165	$97	58%	$165	$87
• aged 20 through 64	441 891 (2)	$0	$30 731 740	$16 386 741	$30 432 519	$77 552 000	287 229	65%	n/a	$270	$176	64%	$270	$164
Total	597 629	$0	$36 458 960	$19 644 464	$36 482 576	$92 587 000	378 351							
e) Total	**757 077** (2)	**$77 899 063** (11)	**$77 133 159**		**$38 651 576**	**$220 488 910**	**527 754**	**70%**	**n/a**	**$418**	**$291**	65%	$466	$303

(1) Based on data from the N.B. Drug Plan (2000-01)

(2) Based on population estimates for July 1, 2001; the total is adjusted to prevent double counting of the seniors who are Social Assistance recipients

(3) Sum of $10,471,943 (ingredient cost) and $1,989,114 (dispensing fee)

(4) (11,034 x $12/month subsidy) gives $1,589,000

(5) The cost for persons outside the system is assmumed to be 80% of the average cost of seniors who are insured in the plan - similar to Quebec ratio

(6) Assuming that10% of the other seniors have private insurance and that the employer pays 75% of the cost of their insurance

(7) 80% of the average number of prescriptions of the other seniors

(8) 70% of other residents are deemed to be covered under private insurance plans (the proportion in Quebec is 72%)

(9) The average cost / claimant is assumed to be the same as in Quebec

(10) The proportion of claimants is assumed to be similar to that in Quebec, rounded up to the next multiple of 5%

(11) The figure given by NBPDP is 2,276,111; this figure has been adjusted with a balancing item so that the total cost is met

(12) This figure assumes that employers pay, on the average , 65% of the cost of private plans and that these plans reimburse 86% of the cost of prescription drugs. These % come from a report commissioned by the Province of Quebec.

Table B : Current Situation (Quebec)
Without Administration Expenses

		Cost (2000 Figures)									
			Patients							Average Total Cost	
	Number	Government	Cost-sharing	Premiums	Employers through private plans	Total	Number of Claimants	% of Claimants	Nb. of prescr. / Claimant	/ claimant	/ insured
a) Persons Receiving Social Assistance											
– Below age 18 & Students	174 687 (1)	$15 882 041 (1)	$0 (1)	$0	$0	$15 882 041	101 595 (1)	58%	6,36 (1)	$156	$91
– Aged 18 through 64											
• able to work	289 335 (1)	$84 654 365 (1)	$15 395 373 (1)	$0	$0	$100 049 738	185 399 (1)	64%	18,95 (1)	$540	$346
• unable to work	131 746 (1)	$235 689 329 (1)	$0 (1)	$0	$0	$235 689 329	114 150 (1)	87%	64,86 (1)	$2 065	$1 789
• subtotal	421 081 (1)	$320 343 694 (1)	$15 395 373 (1)	$0	$0	$335 739 067	299 549 (1)	71%	36,45 (1)	$1 121	$797
– 65 and over	3 661 (1)	$4 167 221 (1)	$247 716 (1)	$0	$0	$4 414 937	3 119 (1)	85%	49,06 (1)	$1 415	$1 206
Total	599 429	$340 392 956	$15 643 089	$0	$0	$356 036 045	404 263	67%	28,25 (1)	$881	$594
b) Seniors											
– receiving maximum GIS	49 930 (1)	$57 184 639 (1)	$6 981 768 (1)	$0	$0	$64 166 407	44 108 (1)	88%	61,11 (1)	$1 455	$1 285
– receiving partial GIS	362 451 (1)	$303 927 905 (1)	$95 125 141 (1)	$41 138 750	$0	$440 191 796	328 148 (1)	91%	51,61 (1)	$1 341	$1 214
– receiving no GIS	446 645 (1)	$246 884 510 (1)	$120 008 160 (1)	$111 661 250	$3 100 000 (8)	$481 653 920	393 682 (1)	88%	41,62 (1)	$1 223	$1 078
– outside the system	73 681 (2)	$0	$0	$0	$0	$0	0 (9)				
Total	932 707 (1)	$607 997 054 (1)	$222 115 069 (1)	$152 800 000	$3 100 000	$986 012 123	765 938	82%	46,71 (1)	$1 287	$1 057
c) Other Government Plans	n / a	$0	$0		$0	$0	0	n/a	0,00	$0	0
d) Other residents											
– Insured under private plans											
• below age 18	1 200 813	$0	$16 650 341 (7)	$35 798 233 (7)	$66 482 433 (7)	$118 931 008	720 488	60%	6,10 (6)	$165	$87 (6)
• aged 18 through 64	2 852 710	$0	$70 169 733 (7)	$150 864 927 (7)	$280 177 721 (7)	$501 212 381	1 854 261	65%	17,23 (6)	$270	$164 (6)
– Insured in the RAMQ plan											
• below age 18 & students	462 596 (1)	$40 037 586 (1)	$0 (1)	$0	$0	$40 037 586 (1)	242 549 (1)	52%	6,10	$165	$87
• aged 18 through 64	1 213 009 (1)	$88 579 572 (1)	$110 889 704 (1)	$190 600 000 (5)	$0	$199 469 276 (1)	737 947 (1)	61%	17,23	$270	$164
– Subtotal											
• below age 18 & students	1 663 409 (4)	$40 037 586	$16 650 341	$35 798 233	$66 482 433	$158 968 594	963 037	58%	6,10 (6)	$165	$87 (6)
• aged 18 through 64	4 065 719 (4)	$88 579 572	$181 059 437	$341 464 927	$280 177 721	$700 681 657	2 592 208	64%	17,23 (6)	$270	$164 (6)
Total	5 729 128	$128 617 158	$197 709 778	$377 263 160	$346 660 155	$859 650 251	3 555 245		14,22		
e) Total	**7 261 264 (3)**	**$1 077 007 168**	**$435 467 936**	**$530 063 160**	**$349 760 155**	**$2 201 698 419**	**4 725 446**	**65%**	**20,68**	**$466**	**$303**

(1) Based on RAMQ Statistics for year 2000 [Full-time equivalents], Table 5.06

(2) Derived from RAMQ Statistics for year 2000 by subtracting senior population insured under RAMQ PDP from total RAMQ senior population (table 5.01 - table 5.06)
These persons are either covered under a private plan or covered as residents in a long term care hospital

(3) Based on RAMQ Statistics for year 2000 (table 1.01)

(4) Based on RAMQ Statistics for year 2000 (table 1.01) and statistics from the Ministère de l'Éducation du Québec

(5) From the Montmarquette report

(6) assumed to be the same % as in the RAMQ plan

(7) According to the Gagnon report in Quebec, employers pay approximately 65% of the cost of plans which pay, in turn, approximately 86% of the cost of prescription drugs

(8) Based on statistics drom SSQ Life (SSQ's market share is assumed to be 15% and all benefits paid toward the seniors cost-sharing in the RAMQ plan are assumed to be 100% employer-paid)

(9) Assumption based on the presomption that all these seniors are hospitalized; as a result, the cost of prescription drugs is borne by the hospitals

Appendix C
Glossary of Prescription Drug Insurance Terms

Claimant	A person who, as the result of the realization of a risk, incurs expenses covered under an insurance plan and asks the insurer to pay the indemnity provided for by the plan.
Coinsurance	A cost-sharing formula whereby the insurer pays only a portion of the cost of any claim, over the deductible, the remaining portion being supported by the insured ; this share is usually expressed as a percentage ; for example, when there is no deductible, the impact of a 80% coinsurance on a $100 claim is that the insurer will pay $80 and the insured will pay $20 ; with a $25 deductible, the insurer will reimburse $60 out of the first $100 (80% of $75, due to the deductible) of claim and $80 out of any further $100 claim
Co-payment	A form of coinsurance where the amount left to be supported by the insured person is expressed as a flat amount per unit of claim ; for example, with a co-payment of $2.50 / prescription, a person who has 3 prescriptions will pay $7.50 and the insurer will pay the remainder of the cost of these prescriptions ; (See also "Coinsurance")
Coverage	The fact of being enrolled in an insurance plan (See also "Insurance Coverage")
Deductible	In an insurance plan, the initial portion of eligible expenses incurred during a specified period which is not indemnified ; for example, a deductible of $25 / year means that no benefit will be paid on the first $25 of eligible expenses incurred during a year.
Drug Formulary	List of prescription drugs approved for insurance; list of prescription drugs covered under an insurance plan
Formulary	See "Drug Formulary"
Insurance :	A mechanism under which one party, ("the insurer"), in exchange for a specified cash consideration ("the premium") determined on a pool basis, agrees to indemnify another party

	("the insured) for a loss incurred upon the realization of a risk (see also "Social Insurance")
Insurance Coverage :	The fact of being covered by an insurance plan for specific risks such as the risk of requiring expensive prescription drugs
Insured Person :	A person covered under an insurance program and eligible to the benefits provided by such program
Out-of-pocket Maximum:	Maximum share of claims (deductible + coinsurance or copayment) supported by one claimant within a specified period ; generally expressed on an annual basis ; for example, if a plan has a $25 deductible, a 80% coinsurance and a $1,000 out-of pocket maximum and if an insured person claimed $7,000 of eligible expenses, the claimant will support only $1,000 instead of $1,395, which is 20% of ($7,000 - $25)
Pooling (in general)	Risk-sharing mechanism whereby persons who are at a risk put money in a pool for indemnifying those who will incur a loss from the realization of the risk.
Pooling (inter-company)	Risk-sharing mechanism whereby insurers put premiums in an industry-wide pool to share the cost of claims that, because of their large size or unpredictability, could disrupt the experience of any insurer's pool
Pooling (intra-company)	Risk-sharing mechanism whereby an insurer pools the claims of various groups so that the experience-rating process does not result in any group paying an excessively high premium due to the occurrence of a large unpredictable claim
Risk	An event which is unpredictable on an individual basis and whose realization results in a financial loss.
Uninsurable	A person who will most certainly suffer a financial loss due to a condition that already exists